



Smarter Buildings. Smarter People.  
Connected Real Estate.

## GENERAL SERVICES ADMINISTRATION

Federal Acquisition Service Authorized  
Federal Supply Schedule FSS Price List



**TECHNOLOGY**  
Integration and  
Innovation



**BUILDINGS**  
Operations and  
Services



**PEOPLE**  
Strategy and  
Program Support

### Schedule Information:

Multiple Award Schedule

Large Category: Office Management, Facilities, Furniture & Furnishings, Human Capital,  
Information Technology, Miscellaneous, Professional Services

Schedule Contract No: 47QSMS24D009L

Contract Period of Performance: 07/09/2024 – 07/08/2029 (Base)

07/09/2029 – 07/08/2034 (Option 1)

07/09/2034 – 07/08/2039 (Option 2)

07/09/2039 – 07/08/2044 (Option 3)

### Contractor Information:

The Building People

215 Depot Ct. SE, 3<sup>rd</sup> Floor

Leesburg, VA 20175

[www.thebuildingpeople.com](http://www.thebuildingpeople.com)

### Business Information:

DUNS: 078428718 | CAGE Code: 6ZNL0 | SAM Expiration: 04/26/2025

### Small Business Administration Classification:

8(a) Small Business Certified (Corporation), Small Disadvantaged Business (SDB), Minority  
Business Enterprise (MBE), Disadvantaged Business Enterprise (DBE) Certification #700197

SBA HUBZone Certification #53038

### Contractor Point of Contact:

Lawrence A. Melton, CEO/President

(703) 669.2222 | [lawrence.melton@thebuildingpeople.com](mailto:lawrence.melton@thebuildingpeople.com)

### Updated:

Modification # PO-0001, Dated 07/09/2024

*On-line access to contract ordering information, terms and conditions, up-to-date pricing, and the option to create an electronic delivery order are available through GSA Advantage!, a menu-driven database system. The INTERNET address for GSA Advantage! is: [www.GSAAdvantage.gov](http://www.GSAAdvantage.gov).*

*For more information on ordering from Federal Supply Schedules click on FSS Schedules at GSA.gov.*

**1. AWARDED SPECIAL ITEM NUMBERS**

**1.a. TABLE OF AWARDED SINS**

Large Category		Subcategory		SIN	SIN Title
A	Office Management	A02	Audio Visual Services	541990AV	Professional Audio/Video Services
		A08	Office Services	541614OR	Office Relocation and Reconfiguration
B	Facilities	B01	Facilities Maintenance and Repair	561210FAC	Facilities Maintenance and Management
		B02	Facilities Services	541690E	Energy Services
		B03	Facilities Solutions	334512	Total Solution Support Products for Facilities Management Systems
561210SB	Smart Buildings Systems Integrator				
C	Furniture and Furnishings	C02	Furniture Services	541614CF	Comprehensive Furniture Management Services
D	Human Capital	D03	Human Resources	541612HC	Agency Human Capital Strategy, Policy and Operations
				56131	Talent Acquisition
				611430TD	Talent Development
F	Information Technology	F03	IT Services	54151S	Information Technology Professional Services
G	Miscellaneous	G06	Complementary SINS	ANCILLARY	Ancillary Supplies and Services
				ANCRA	Ancillary Repair and Alterations
				OLM	Order-Level Materials (OLM)
H	Professional Services	H01	Business Administrative Services	541611	Management and Financial Consulting, Acquisition and Grants Management Support, and Business Program and Project Management Services
		H03	Financial Services	541219	Budget and Financial Management Services
		H07	Logistical Services	541614	Deployment, Distribution and Transportation Logistics Services
				541430	Graphic Design Services
		H08	Marketing and Public Relations	561920	Conference, Meeting, Event and Trade Show Planning Services
				541330ENG	Engineering Services
				541690	Technical Consulting Services
H09	Technical and Engineering Services (Non IT)	541715	Engineering Research and Development and Strategic Planning		
		H10	Training	611430	Professional and Management Development Training

**1.b. NOT APPLICABLE**

**1.c. LABOR CATEGORIES & RATES**

Please see Appendix A for Labor Category Rates and Appendix B for Labor Category Descriptions

**2. MAXIMUM ORDER VALUE**

SIN	Maximum Order Threshold
56131	\$1,000,000
541219	
541430	
541611	
541614	
541690	
541715	
561920	
611430	
541330ENG	
541612HC	
541690E	
561210FAC	
561210SB	
611430TD	
54151S	\$500,000
541614OR	
541614CF	\$250,000
334512	
541990AV	
ANCILLARY	
ANCRA	
OLM	

**3. MINIMUM ORDER**

\$100.00

**4. GEOGRAPHIC COVERAGE (DELIVERY AREA)**

Domestic

**5. POINTS OF PRODUCTION (CITY, COUNTY, AND STATE OR FOREIGN COUNTRY)**

All services offered are based from The Building People's headquarters, located in Leesburg, VA.

**6. DISCOUNT FROM LIST PRICES OR STATEMENT OF NET PRICE**

All prices are net prices.

**7. QUANTITY DISCOUNTS**

1.50% discount on orders exceeding \$250,000

**8. PROMPT PAYMENT TERMS**

Net 30 days

Information for Ordering Offices: Prompt payment terms cannot be negotiated out of the contractual agreement in exchange for other concessions.

**9. FOREIGN ITEMS (LIST ITEMS BY COUNTRY OF ORIGIN):**

N/A

**10. DELIVERY**

**10.a. TIME OF DELIVERY:**

Specific to each task order.

**10.b. EXPEDITED DELIVERY:**

Specific to each task order.

**10.c. OVERNIGHT AND 2-DAY DELIVERY:**

None.

**10.d. URGENT REQUIREMENTS:**

Specific to each task order.

**11. F.O.B. POINT(S)**

Destination.

**12. ORDERING**

**12.a. ORDERING ADDRESS:**

The Building People | 215 Depot Ct. SE, 3<sup>rd</sup> Floor, Leesburg, VA 20175

**12.b. ORDERING PROCEDURES:**

For supplies and services, the ordering procedures, information on Blanket Purchase Agreements (BPA's) are found in Federal Acquisition Regulation (FAR) 8.405-3.

**13. PAYMENT ADDRESS:**

The Building People | 215 Depot Ct. SE, 3<sup>rd</sup> Floor, Leesburg, VA 20175

**14. WARRANTY PROVISION**

N/A

**15. EXPORT PACKING CHARGES, IF APPLICABLE**

N/A

**16. TERMS AND CONDITIONS OF GOVERNMENT PURCHASE CARD ACCEPTANCE  
(ANY THRESHOLDS ABOVE THE MICRO-PURCHASE LEVEL)**

N/A

**17. TERMS AND CONDITIONS OF RENTAL, MAINTENANCE, AND REPAIR (IF APPLICABLE)**

N/A

**18. TERMS AND CONDITIONS OF INSTALLATION (IF APPLICABLE):**

**18.a. TERMS AND CONDITIONS FOR ANY OTHER SERVICES (IF APPLICABLE)**

N/A

**18.b. TERMS AND CONDITIONS FOR ANY OTHER SERVICES (IF APPLICABLE)**

N/A

**19. LIST OF SERVICE AND DISTRIBUTION POINTS (IF APPLICABLE)**

N/A

**20. LIST OF PARTICIPATING DEALERS (IF APPLICABLE)**

N/A

**21. PREVENTIVE MAINTENANCE (IF APPLICABLE)**

N/A

**22.**

**22.a. SPECIAL ATTRIBUTES SUCH AS ENVIRONMENTAL ATTRIBUTES (E.G., RECYCLED CONTENT, ENERGY EFFICIENCY, AND/OR REDUCED POLLUTANTS)**

N/A

**22.b. IF APPLICABLE, INDICATE THAT SECTION 508 COMPLIANCE INFORMATION IS AVAILABLE ON ELECTRONIC AND INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) SUPPLIES AND SERVICES AND SHOW WHERE FULL DETAILS CAN BE FOUND (E.G. CONTRACTOR'S WEBSITE OR OTHER LOCATION.): NOT APPLICABLE**

**THE EIT STANDARDS CAN BE FOUND AT: [WWW.SECTION508.GOV/](http://WWW.SECTION508.GOV/)**

N/A

**23. UNIQUE ENTITY IDENTIFIER (UEI) NUMBER:**

H294NPGNMEB5

**24. SYSTEM FOR AWARD MANAGEMENT (SAM) DATABASE:**

The Building People is registered in the System For Award Management (SAM) database (<https://www.sam.gov/SAM/>).

## ABOUT THE BUILDING PEOPLE

The Building People is a recognized leader in real estate and facilities services. Our global organization delivers total lifecycle solutions for clients that integrate technology, buildings, and people to solve today's complex challenges for building owners, occupiers and stakeholders. We empower our clients to maximize the workplace experience and reduce costs without sacrificing quality and reliability. Our strategy leads clients towards the future of facilities through a connected real estate model that propagates new norms to deliver organizational efficiency, sustainability, and savings.

We provide technical, management consulting, and professional support services in the government, real estate, facilities management, energy and sustainability, financial management, project management, and information technology markets. We serve commercial, institutions, and government clients, delivering solutions that improve operations and asset management performance without sacrificing reliability and service.

Our team brings complete real estate and facilities management services that are a core market offering that our team understands *and* delivers on. We provide our clients with the strategic roadmap they need to deal with complex real estate decisions in today's market and bring critical, long standing knowledge in our market offerings that provides our customers with the level of experience needed to solve today's portfolio strategies.

The Building People's commitment is driven by our passion to innovate, lead with experience, and build long-term relationships with our clients. Our integrated delivery drives collaboration among building owners, occupants, and operators to develop sustainable facilities that are efficient, cost effective, and resilient. To make our clients successful, we offer solutions across the entire real estate life cycle of design, build, operate, maintain, and disposal. Our solutions lead clients to deliver smarter people, smarter buildings, and the Connected Real Estate Model.

### The Building People at a Glance

- 8(a) Small Disadvantaged Business
- HUBZone
- Small Disadvantaged Business Enterprise (DBE)
- Minority Owned Business (MBE)
- Experienced Management Team
- Team of Senior-Level Subject Matter Experts
- Market Focus Areas:
  - ✓ Real Estate
  - ✓ Facility Management
  - ✓ Energy & Sustainability
  - ✓ Environmental Services
  - ✓ Construction & Engineering Management
  - ✓ Financial Management
  - ✓ Technology Solutions & Services
  - ✓ Mission Support Services
- Expertise in Government Contracting
- Delivering solutions internationally

## OUR MISSION

The Building People integrate technology, buildings, and people to deliver the future of facilities today.

## OUR STRATEGY

We understand that corporate real estate teams face relentless pressure to reduce costs and mitigate risk, while meeting mandates to continually add more value and support corporate goals for sustainability, productivity and growth. As an integrated real estate and facilities organization, we bring new ideas and methodologies that are needed to meet these demands.

As a recognized leader in real estate and facilities services, The Building People integrate technology, buildings, and people to deliver the future of facilities today. We solve the complex challenges facing building owners, tenants and stakeholders by maximizing the workplace experience and reducing costs – all without sacrificing quality or reliability. Our approach integrates all phases of the real estate life cycle, and our commitment is driven by our passion to innovate, lead with experience, and build long-term relationships with our clients. The real estate and the facilities landscapes are changing, join us and we will lead this change together.

## OUR COMMITMENT

Our commitment to your facility and project is driven through our desire to innovate, lead with our experienced team's vision, and build long-term relationships. Our integrated delivery will drive collaboration for building owners, occupants, and the environment.

We know that our clients need to achieve maximum success. To make that a reality, we offer expertise in all areas, including design, build, operations and maintenance. We provide the complete lifecycle of operations for our clients.

## OUR EXPECTATIONS

We expect our innovations to maximize the workplace experience and reduce costs without sacrificing quality and reliability. Our solutions equip building owners and operators with tools to propagate new norms and change tenant behaviors, which in turn drive greater organizational efficiency and provide cost savings and sustainability.

## OUR MODEL

You don't have to choose between **efficiency, savings and sustainability**. Our model will lead our customers and the industry toward better utilization while providing the very best amenities. Whether its operations or strategy and program support, we have the unique ability and skill sets to provide solutions.

## OUR CORPORATE GOAL

Our connected real estate organization is able to leverage consolidated data and analytics, which is why our goal and brand is to position our clients to prioritize their future using the data to transform insights into action. Our process enables a complete solution that is supported by robust facilities & real estate experts that understand the change needed around the "people" (building owners and occupants). We will position our clients to achieve "innovation" by driving competitive differentiation.

## Services

Our service offerings related to this Schedule include the following:

### **FACILITY MANAGEMENT**

- Operations & Maintenance Support Services
- Facilities Engineering & Maintenance
- Outsourced Facility Staff & Services
- Remote Monitoring and Remote Operations
- Training & Distance Learning
- Computer Maintenance Management Systems (CMMS)

### **FINANCIAL MANAGEMENT**

- Capital Planning, Budgeting & Forecasting
- Enterprise Asset & Financial Management
- Lease Administration & Occupant Performance
- Property Accounting & Acquisition Services
- Regulatory & Transaction Management

### **ENERGY & SUSTAINABILITY**

- Energy Benchmarking, Management Planning & Strategies
- Training on Energy Management
- Energy Program Support Services and Audit Services
- Innovations in Renewable Energy
- Energy Consulting Services

### **TECHNOLOGY**

- Enterprise Architecture & Resource Planning
- System Design Integration & Innovation
- Data Solutions & Analytics
- Computer Maintenance Management System (CMMS)
- Integrated Work Management Systems (IWMS)
- Smart Buildings
- Systems Integration & Engineering
- Facility Operations & Efficiency
- Planning & Design and Training & Development
- Remote Building Monitoring
- Security Integration, Monitoring & Design



Additional service offerings our team provides include the following:

### ENVIRONMENTAL SERVICES

- Environmental Consulting and Training
- Geographic Information Systems (GIS) Services
- Materials & Waste, Recycling & Disposal Support Services
- Consulting relating to protecting the environment
- Consulting relating to designing environments
- Creation and enforcement of environmental legislation
- Assessment of the impact of actions on the environment

### REAL ESTATE SERVICES

- Enterprise Real Estate Standards & Policy
- Move & Space Management & Planning
- Property Management and Tenant Representation
- Workplace Performance & Optimization

### CONSTRUCTION & ENGINEERING MANAGEMENT

- Project Management
- Project Risk Analysis
- Project Scheduling & Project Training
- Consulting relating to designing environments
- Creation and enforcement of environmental legislation
- Cost Analysis & Estimating
- Project Turnaround & Value Management
- Assessment of the impact of actions on the environment

### MISSION SUPPORT SERVICES

- Strategic Business Analysis & Planning
- Acquisition, Project Management, and Logistics
- Benchmarking & Performance Measures
- Process & Performance Improvement
- Communications & Change Management
- Human Capital Management

## APPENDIX A – THE BUILDING PEOPLE LABOR RATES

Labor Category	From	07/09/24	07/09/25	07/09/26	07/09/27	07/09/28
	To	07/08/25	07/08/26	07/08/27	07/08/28	07/08/29
Administrative Assistant		\$ 101.02	\$ 104.65	\$ 108.42	\$ 112.32	\$ 116.36
Analyst I		\$ 105.26	\$ 109.05	\$ 112.98	\$ 117.05	\$ 121.26
Analyst II		\$ 131.59	\$ 136.32	\$ 141.23	\$ 146.32	\$ 151.59
Analyst III		\$ 152.34	\$ 157.82	\$ 163.51	\$ 169.39	\$ 175.49
Application Developer I		\$ 140.51	\$ 145.57	\$ 150.81	\$ 156.24	\$ 161.86
Application Developer II		\$ 193.00	\$ 199.95	\$ 207.14	\$ 214.60	\$ 222.33
Application SME		\$ 230.79	\$ 239.10	\$ 247.71	\$ 256.62	\$ 265.86
Asset/Property Manager I		\$ 106.86	\$ 110.71	\$ 114.70	\$ 118.83	\$ 123.11
Asset/Property Manager II		\$ 146.35	\$ 151.62	\$ 157.08	\$ 162.73	\$ 168.58
Asset/Property Manager III		\$ 171.44	\$ 177.61	\$ 184.01	\$ 190.63	\$ 197.49
Building Controls Programmer		\$ 177.50	\$ 183.89	\$ 190.51	\$ 197.37	\$ 204.47
Building Controls System Specialist		\$ 105.57	\$ 109.37	\$ 113.31	\$ 117.39	\$ 121.61
Building Manager I		\$ 111.79	\$ 115.81	\$ 119.98	\$ 124.30	\$ 128.78
Building Manager II		\$ 122.93	\$ 127.36	\$ 131.94	\$ 136.69	\$ 141.60
Building Manager III		\$ 138.07	\$ 143.03	\$ 148.18	\$ 153.51	\$ 159.03
Building Manager IV		\$ 167.97	\$ 174.02	\$ 180.28	\$ 186.77	\$ 193.49
Cable Installer		\$ 106.80	\$ 110.65	\$ 114.63	\$ 118.76	\$ 123.03
Cad & Architectural Design Specialist		\$ 124.23	\$ 128.71	\$ 133.34	\$ 138.14	\$ 143.11
CAD Designer		\$ 90.36	\$ 93.61	\$ 96.98	\$ 100.47	\$ 104.09
CAD Operator		\$ 76.50	\$ 79.25	\$ 82.11	\$ 85.06	\$ 88.12
Carpenter, Maintenance		\$ 75.22	\$ 77.93	\$ 80.74	\$ 83.64	\$ 86.65
Chief Engineer		\$ 138.70	\$ 143.70	\$ 148.87	\$ 154.23	\$ 159.78
Computer Aided Facilities Management Tech.		\$ 90.36	\$ 93.61	\$ 96.98	\$ 100.47	\$ 104.09
Construction Manager I		\$ 82.48	\$ 85.45	\$ 88.52	\$ 91.71	\$ 95.01
Construction Manager II		\$ 125.13	\$ 129.63	\$ 134.30	\$ 139.13	\$ 144.14
Construction Manager III		\$ 155.92	\$ 161.53	\$ 167.35	\$ 173.37	\$ 179.61
Construction Principal		\$ 194.37	\$ 201.36	\$ 208.60	\$ 216.11	\$ 223.89
Consultant I		\$ 166.85	\$ 172.86	\$ 179.08	\$ 185.53	\$ 192.21
Consultant II		\$ 199.67	\$ 206.85	\$ 214.30	\$ 222.02	\$ 230.01
Consultant III		\$ 242.27	\$ 250.99	\$ 260.03	\$ 269.39	\$ 279.09
Custodian/Housekeeper		\$ 43.10	\$ 44.65	\$ 46.27	\$ 47.93	\$ 49.65
Designer I		\$ 83.29	\$ 86.30	\$ 89.40	\$ 92.61	\$ 95.95
Designer II		\$ 124.93	\$ 129.42	\$ 134.08	\$ 138.90	\$ 143.90
Designer III		\$ 145.74	\$ 150.99	\$ 156.42	\$ 162.06	\$ 167.89
Drivers – Straight Truck (Liftgate & Van)		\$ 51.88	\$ 53.74	\$ 55.68	\$ 57.68	\$ 59.76
Electrical Engineer		\$ 205.28	\$ 212.66	\$ 220.32	\$ 228.25	\$ 236.47
Electrician I		\$ 90.93	\$ 94.21	\$ 97.60	\$ 101.12	\$ 104.76
Electrician II		\$ 134.85	\$ 139.71	\$ 144.74	\$ 149.94	\$ 155.35
Electrician, Maintenance		\$ 94.52	\$ 97.92	\$ 101.45	\$ 105.10	\$ 108.89
Energy Consultant I		\$ 105.75	\$ 109.56	\$ 113.50	\$ 117.59	\$ 121.82
Energy Consultant II		\$ 131.34	\$ 136.06	\$ 140.96	\$ 146.04	\$ 151.29
Energy Consultant III		\$ 150.47	\$ 155.89	\$ 161.50	\$ 167.31	\$ 173.34
Engineer I		\$ 94.13	\$ 97.51	\$ 101.02	\$ 104.65	\$ 108.42
Engineer II		\$ 135.41	\$ 140.28	\$ 145.33	\$ 150.56	\$ 155.98

Labor Category	From	07/09/24	07/09/25	07/09/26	07/09/27	07/09/28
	To	07/08/25	07/08/26	07/08/27	07/08/28	07/08/29
Engineer III		\$ 167.95	\$ 173.99	\$ 180.26	\$ 186.75	\$ 193.47
Engineering Principal		\$ 204.88	\$ 212.25	\$ 219.89	\$ 227.81	\$ 236.01
Environmental Health & Safety Supv.		\$ 87.38	\$ 90.52	\$ 93.77	\$ 97.15	\$ 100.64
Facilities Management Specialist I		\$ 97.42	\$ 100.93	\$ 104.56	\$ 108.33	\$ 112.23
Facilities Management Specialist II		\$ 121.19	\$ 125.55	\$ 130.08	\$ 134.76	\$ 139.62
Facilities Management Specialist III		\$ 142.59	\$ 147.72	\$ 153.04	\$ 158.55	\$ 164.25
Furniture Technician		\$ 81.70	\$ 84.64	\$ 87.69	\$ 90.84	\$ 94.12
General Clerk I		\$ 41.02	\$ 42.50	\$ 44.03	\$ 45.61	\$ 47.25
General Clerk II		\$ 46.04	\$ 47.69	\$ 49.40	\$ 51.18	\$ 53.03
General Clerk III		\$ 51.04	\$ 52.88	\$ 54.78	\$ 56.76	\$ 58.80
General Maintenance Worker		\$ 66.44	\$ 68.83	\$ 71.30	\$ 73.87	\$ 76.53
GIS/CAD Specialist		\$ 110.32	\$ 114.29	\$ 118.40	\$ 122.66	\$ 127.07
Grounds Maintenance Laborer		\$ 41.02	\$ 42.50	\$ 44.03	\$ 45.61	\$ 47.25
Housekeeping Custodial Lead		\$ 49.64	\$ 51.43	\$ 53.28	\$ 55.19	\$ 57.18
Housekeeping Custodial Supervisor		\$ 62.27	\$ 64.50	\$ 66.82	\$ 69.23	\$ 71.72
HVAC Mechanic		\$ 86.64	\$ 89.76	\$ 93.00	\$ 96.34	\$ 99.81
Installation Technician		\$ 87.56	\$ 90.71	\$ 93.97	\$ 97.36	\$ 100.87
Interior Designer I		\$ 93.69	\$ 97.07	\$ 100.56	\$ 104.18	\$ 107.93
Interior Designer II		\$ 109.31	\$ 113.25	\$ 117.33	\$ 121.55	\$ 125.92
IT Specialist		\$ 75.72	\$ 78.45	\$ 81.27	\$ 84.19	\$ 87.22
Laborer		\$ 66.62	\$ 69.02	\$ 71.51	\$ 74.08	\$ 76.75
Locksmith		\$ 77.10	\$ 79.87	\$ 82.74	\$ 85.72	\$ 88.81
Logistics Specialist I		\$ 98.64	\$ 102.19	\$ 105.86	\$ 109.67	\$ 113.62
Logistics Specialist II		\$ 120.82	\$ 125.17	\$ 129.67	\$ 134.34	\$ 139.17
Logistics Specialist III		\$ 141.83	\$ 146.94	\$ 152.23	\$ 157.71	\$ 163.40
Maintenance Scheduler		\$ 57.07	\$ 59.12	\$ 61.25	\$ 63.46	\$ 65.74
Maintenance Trades Helper		\$ 57.85	\$ 59.94	\$ 62.10	\$ 64.33	\$ 66.65
Manager I		\$ 96.15	\$ 99.62	\$ 103.20	\$ 106.92	\$ 110.77
Manager II		\$ 138.81	\$ 143.81	\$ 148.99	\$ 154.35	\$ 159.90
Manager III		\$ 155.92	\$ 161.53	\$ 167.35	\$ 173.37	\$ 179.61
Manager IV		\$ 233.92	\$ 242.35	\$ 251.07	\$ 260.11	\$ 269.47
Move Supervisor		\$ 48.52	\$ 50.27	\$ 52.08	\$ 53.95	\$ 55.90
Network SME		\$ 246.99	\$ 255.89	\$ 265.10	\$ 274.64	\$ 284.52
Operations Manager		\$ 107.41	\$ 111.27	\$ 115.28	\$ 119.44	\$ 123.74
Planner/Scheduler/Inventory		\$ 98.60	\$ 102.15	\$ 105.82	\$ 109.63	\$ 113.58
Plumber Maintenance		\$ 86.69	\$ 89.81	\$ 93.05	\$ 96.39	\$ 99.86
Principal I		\$ 235.31	\$ 243.79	\$ 252.56	\$ 261.65	\$ 271.07
Principal II		\$ 267.75	\$ 277.39	\$ 287.38	\$ 297.72	\$ 308.44
Program Manager		\$ 219.28	\$ 227.18	\$ 235.37	\$ 243.84	\$ 252.61
Project Coordinator		\$ 88.49	\$ 91.68	\$ 94.98	\$ 98.40	\$ 101.94
Project Director		\$ 213.12	\$ 220.79	\$ 228.74	\$ 236.97	\$ 245.50
Project Engineer I		\$ 136.87	\$ 141.79	\$ 146.90	\$ 152.19	\$ 157.67
Project Engineer II		\$ 166.92	\$ 172.93	\$ 179.15	\$ 185.60	\$ 192.28
Project Engineer III		\$ 183.63	\$ 190.24	\$ 197.09	\$ 204.18	\$ 211.54
Project Manager I		\$ 155.31	\$ 160.91	\$ 166.70	\$ 172.71	\$ 178.92
Project Manager II		\$ 199.16	\$ 206.34	\$ 213.76	\$ 221.46	\$ 229.43
Purchasing Specialist		\$ 100.56	\$ 104.18	\$ 107.93	\$ 111.82	\$ 115.85

Labor Category	From	07/09/24	07/09/25	07/09/26	07/09/27	07/09/28
	To	07/08/25	07/08/26	07/08/27	07/08/28	07/08/29
Relocation Coordinator		\$ 83.29	\$ 86.30	\$ 89.40	\$ 92.61	\$ 95.95
Resource Efficiency Manager (REM) 1		\$ 102.27	\$ 105.94	\$ 109.76	\$ 113.71	\$ 117.80
Resource Efficiency Manager (REM) 2		\$ 122.87	\$ 127.29	\$ 131.88	\$ 136.62	\$ 141.54
Resource Efficiency Manager (REM) 3		\$ 148.62	\$ 153.97	\$ 159.52	\$ 165.26	\$ 171.20
Resource Efficiency Manager (REM) 4		\$ 191.99	\$ 198.90	\$ 206.07	\$ 213.48	\$ 221.17
Service Order Dispatcher		\$ 58.75	\$ 60.87	\$ 63.05	\$ 65.32	\$ 67.67
Space Planner		\$ 93.69	\$ 97.07	\$ 100.56	\$ 104.18	\$ 107.93
Subject Matter Expert I		\$ 225.46	\$ 233.58	\$ 241.99	\$ 250.71	\$ 259.74
Subject Matter Expert II		\$ 275.39	\$ 285.30	\$ 295.57	\$ 306.21	\$ 317.23
Subject Matter Expert III		\$ 312.13	\$ 323.37	\$ 335.00	\$ 347.06	\$ 359.56
Systems Administrator		\$ 59.68	\$ 61.82	\$ 64.05	\$ 66.36	\$ 68.75
Systems Integration SME		\$ 193.00	\$ 199.95	\$ 207.14	\$ 214.60	\$ 222.33
Technical Writer		\$ 94.97	\$ 98.39	\$ 101.93	\$ 105.60	\$ 109.40
Telecommunications Technician		\$ 83.29	\$ 86.30	\$ 89.40	\$ 92.61	\$ 95.95
Warehouse Specialist		\$ 62.75	\$ 65.01	\$ 67.35	\$ 69.77	\$ 72.28
Workplace Program Manager		\$ 182.19	\$ 188.75	\$ 195.54	\$ 202.58	\$ 209.87
Workplace Project Manager I		\$ 93.69	\$ 97.07	\$ 100.56	\$ 104.18	\$ 107.93
Workplace Project Manager II		\$ 140.54	\$ 145.60	\$ 150.84	\$ 156.27	\$ 161.89
Workplace Project Manager III		\$ 166.56	\$ 172.55	\$ 178.77	\$ 185.21	\$ 191.88
Workplace Project/Program Executive		\$ 197.80	\$ 204.93	\$ 212.30	\$ 219.95	\$ 227.87

Service Contract Act Matrix		
SCA Eligible Labor Category/Service**	SCA Equivalent Code & Title	Applicable Wage Determination
Administrative Assistant	01020 - Administrative Assistant	WD 15-4281
CAD Designer	30062 - Drafter/CAD Operator II	WD 15-4281
CAD Operator	30061 - Drafter/CAD Operator I	WD 15-4281
Carpenter, Maintenance	23130 - Carpenter, Maintenance	WD 15-4281
Custodian/Housekeeper	11122 - Housekeeping Aide	WD 15-4281
Drivers – Straight Truck (Liftgate & Van)	31361 - Truckdriver Light	WD 15-4281
Electrician, Maintenance	23160 - Electrician, Maintenance	WD 15-4281
Furniture Technician**	09110 - Furniture Repairer Minor	WD 15-4281
General Clerk 1	01111 - General Clerk I	WD 15-4281
General Clerk 2	01112 - General Clerk II	WD 15-4281
General Clerk 3	01113 - General Clerk III	WD 15-4281
General Maintenance Worker	23370 - General Maintenance Worker	WD 15-4281
Grounds Maintenance Laborer	11210 - Laborer, Grounds Maintenance	WD 15-4281
HVAC Mechanic	23410 - Heating, Ventilation And Air-Conditioning Mechanic	WD 15-4281
Laborer	23470 - Laborer	WD 15-4281
Locksmith	23510 - Locksmith	WD 15-4281
Maintenance Scheduler	01300 - Scheduler, Maintenance	WD 15-4281
Maintenance Trades Helper	23580 - Maintenance Trades Helper	WD 15-4281
Plumber Maintenance	23810 - Plumber, Maintenance	WD 15-4281
Service Order Dispatcher	01320 - Service Order Dispatcher	WD 15-4281
Warehouse Specialist	21410 - Warehouse Specialist	WD 15-4281

The Service Contract Labor Standards, formerly the Service Contract Act (SCA), apply to this contract and it includes SCLS applicable labor categories. Labor categories and fixed price services marked with a (\*\*) in this pricelist are based on the U.S. Department of Labor Wage Determination Number(s) identified in the SCLS/SCA matrix. The prices awarded are in line with the geographic scope of the contract (i.e., nationwide).

## APPENDIX B – LABOR CATEGORY DESCRIPTIONS

Labor Category	Min EDU	Min EXP	Description
Administrative Assistant**	Associates	2	Assists technical experts with the management of schedules, organization of tasks, preparation for meetings and other sessions, documentation of meeting results, and completion of contractually required paperwork.
Analyst I	Associates	5	Provides research and analysis tasks as assigned. Conducts data surveys and audits, collects, analyzes and summarizes data. Contributes to reports and assists more senior staff members as required.
Analyst II	Bachelors	5	Provides research and analysis tasks as assigned. Conducts data surveys and audits, collects, analyzes and summarizes data. Contributes to reports and assists more senior staff members as required.
Analyst III	Bachelors	8	Provides research and analysis tasks as assigned. Conducts data surveys and audits, collects, analyzes and summarizes data. Contributes to reports and provides direction to Analyst I and II.
Application Developer I	Bachelors	5	Analyzes user needs to determine requirements and conducts feasibility studies. Identifies resources required for each task. May supervise a small support staff and/or serve as liaison to client staff. Researches developments in field of expertise and applies them to the client environment, including emerging technologies, lessons learned, best practices, and assessment methodologies. Interfaces with client personnel at all organizational levels. Develops white papers and system documentation. Converts functional specifications to technical specifications. Works independently without direct supervision.
Application Developer II	Bachelors	10	Responsible for providing technical support in the development of the application, specifically back end programming and development for the application.
Application SME	Bachelors	10	Responsible for the development and support of the User Interface as part of the software application. The Application SME will utilize the defined implementation process and will efficiently manage the customer and internal project resources to support established milestones, ensuring targeted completion dates are achieved. This position works in complex technology environments requiring a multi-product solution as well as product integration, and/or custom solutions.
Asset/Property Manager I	Bachelors	2	Supports the Asset/Property Manager in managing all aspects of a single property or small portfolio of commercial, industrial, or retail properties including marketing, operations and financial activities. Responds to tenant needs and coordinates with maintenance staff to resolve problems. Maintains positive relationships and high retention levels with all tenants. Responds to all problems and concerns and ensures compliance with rules and regulations. Interacts regularly with property owners to ensure objectives are being met. Oversees the preparation of accurate, timely and complete reports. Supports the planning, budgeting and control of operating and capital expenditures. Prepared annual budgets, forecasts, management plans, monthly performance reports, and variance reports. Understands and provides explanation for variances.
Asset/Property Manager II	Bachelors	5	Support the Asset/Property Manager in managing all aspects of a single property or small portfolio of commercial, industrial, or retail properties including marketing, operations and financial activities. Responds to tenant needs and coordinates with maintenance staff to resolve problems. Maintains positive relationships and high retention levels with all tenants. Responds to all problems and concerns and ensures compliance with rules and regulations. Interacts regularly with property owners to ensure that objectives are being met. Oversees the preparation of accurate, timely and complete reports. Supports the planning, budgeting and control of operating and capital expenditures. Prepares annual budgets, forecasts, management plans, monthly performance reports, and variance reports. Understands and provides explanation for variances.
Asset/Property Manager III	Bachelors	8	Manages all aspects of a complex property or portfolio of commercial, industrial, or retail properties including marketing, operations and financial activities. Provides superior service to tenants and property owners. Oversees the collection of rent, payment of expenses, compliance with lease terms and preparation of all required legal notices. Recommends and coordinates legal action as necessary. Responds to tenant needs and coordinate the maintenance staff to resolve problems. Maintains positive relationships and high retention levels with all tenants. Responds to all problems and concerns and ensures compliance with rules and regulations. Communicates regularly with property owners to ensure objectives are being met. Anticipates and responds to owner's needs and concerns. Oversees the preparation of accurate, timely and complete reports.
Building Controls Programmer	Associates	10	Responsible for programming control sequences; reviewing plans and specifications for construction and renovations projects, and providing comments/recommendations related to controls systems and mechanical/electrical systems to project managers, engineers and energy consultants. Plans and leads the implementation of control system upgrades and expansions, including network communication devices.

Labor Category	Min EDU	Min EXP	Description
Building Controls System Specialist	High School	2	Performs commissioning, preventative maintenance and inspection on Building Automation Systems (BAS). Operates under specific direction with a fair amount of judgment as to approach.
Building Manager I	Associates	5	In support of the senior Building Manager, responsible for improving customer satisfaction with building services maintaining and preserving the real property assets, maintaining or lowering operational costs and ensuring the provision of quality facility related services. Coordinates all on-site building operations, maintenance, alterations, cleaning, recycling, concessions, safety, environmental, and security activities. Receives written or oral customer requests for service, complaints, and other issues and coordinates appropriate action or resolution. (Custodial or maintenance service calls, security, coordination of emergency responses, reimbursable activities, contractor coordination and scheduling, conference facilities, concessions and parking). Investigates, determines, and coordinates the need for repairs or enhancement projects. Analyzes and monitors impact on building systems and equipment to determine facility capability in meeting customer needs. Prepares reviews and/or considers lifecycle condition analysis and similar assessments and from those findings, integrates and quantifies requirements into a scope of work for the project. Prepares specifications for, estimates and monitors repairs by contractors to all items of operating equipment and utilities including electrical systems, water supply and sewage systems in addition to repairs necessitated by damage to buildings due to fire, storms, vandalism, etc.
Building Manager II	Bachelors	5	Responsible for improving customer satisfaction with building services maintaining and preserving the real property assets, maintaining or lowering operational costs and ensuring the provision of quality facility related services. Coordinates all on-site building operations, maintenance, alterations, cleaning, recycling, concessions, safety, environmental, and security activities. Receives written or oral customer requests for service, complaints, and other issues and coordinates appropriate action or resolution. (Custodial or maintenance service calls, security, coordination of emergency responses, reimbursable activities, contractor coordination and scheduling, conference facilities, concessions and parking). Investigates, determines, and coordinates the need for repairs or enhancement projects. Analyzes and monitors impact on building systems and equipment to determine facility capability in meeting customer needs. Prepares reviews and/or considers lifecycle condition analysis and similar assessments and from those findings, integrates and quantifies requirements into a scope of work for the project. Prepares specifications for, estimates and monitors repairs by contractors to all items of operating equipment and utilities including electrical systems, water supply and sewage systems in addition to repairs necessitated by damage to buildings due to fire, storms, vandalism, etc. Contractor is the on-site representative of ownership responsible for all aspects of tenant relations, building operations and maintenance, property improvement, tenant build-outs, expense management, and contract administration.
Building Manager III	Bachelors	8	Responsible for improving customer satisfaction with building services maintaining and preserving the real property assets, maintaining or lowering operational costs and ensuring the provision of quality facility related services. Coordinates all on-site building operations, maintenance, alterations, cleaning, recycling, concessions, safety, environmental, and security activities. Receives written or oral customer requests for service, complaints, and other issues and coordinates appropriate action or resolution. (Custodial or maintenance service calls, security, coordination of emergency responses, reimbursable activities, contractor coordination and scheduling, conference facilities, concessions and parking). Investigates, determines, and coordinates the need for repairs or enhancement projects. Analyzes and monitors impact on building systems and equipment to determine facility capability in meeting customer needs. Prepares reviews and/or considers lifecycle condition analysis and similar assessments and from those findings, integrates and quantifies requirements into a scope of work for the project. Prepares specifications for, estimates and monitors repairs by contractors to all items of operating equipment and utilities including electrical systems, water supply and sewage systems in addition to repairs necessitated by damage to buildings due to fire, storms, vandalism, etc. Contractor is the on-site representative of ownership responsible for all aspects of tenant relations, building operations and maintenance, property improvement, tenant build-outs, expense management, contract administration and staff supervision.

Labor Category	Min EDU	Min EXP	Description
Building Manager IV	Bachelors	10	Responsible for improving customer satisfaction with and sewage systems in addition to repairs necessitated by damage to buildings due to fire, storms, vandalism, etc. Contractor is the on-site representative of ownership responsible for all aspects of tenant relations, building operations and maintenance, property improvement, tenant build-outs, expense management, contract administration and staff supervision. building services maintaining and preserving the real property assets, maintaining or lowering operational costs and ensuring the provision of quality facility related services. Coordinates all on-site building operations, maintenance, alterations, cleaning, recycling, concessions, safety, environmental, and security activities. Receives written or oral customer requests for service, complaints, and other issues and coordinates appropriate action or resolution. (Custodial or maintenance service calls, security, coordination of emergency responses, reimbursable activities, contractor coordination and scheduling, conference facilities, concessions and parking). Investigates, determines, and coordinates the need for repairs or enhancement projects. Analyzes and monitors impact on building systems and equipment to determine facility capability in meeting customer needs. Prepares reviews and/or considers lifecycle condition analysis and similar assessments and from those findings, integrates and quantifies requirements into a scope of work for the project. Prepares specifications for, estimates and monitors repairs by contractors to all items of operating equipment and utilities including electrical systems, water supply
Cable Installer	Associates	2	Duties include, but are not limited to, monitoring the pulling of cable; pulling cable; preparing cable ends for connectors or splices; installation of closures. Fusion of mechanical splices, and documentation of job installations.
Cad & Architectural Design Specialist	Bachelors	5	Utilizing Computer Aided Design software, develops space plans and coordinates office relocations from concept to the physical move. Provides technical support and assistance in development of an effective and economical use of space, performs onsite space surveys and implements actions to ensure the full use of assigned space and furniture. Experience with most aspects of interior design and finishes, including systems furniture and case goods. Provides support in maintaining space records, plans, files and charts for effective space management and develop solutions and details using the CAD system to complete drafting assignments, and redline updates for master record drawing files. Knowledgeable in building mechanical, electrical, and plumbing systems.
CAD Designer**	Associates	3	Prepares architectural, structural, mechanical and/or electrical designs using computer aided design (CAD). Reviews engineering drawing and designs to ensure adherence to established specifications and standards. In addition, may perform Computer Aided Facilities Management Technician duties.
CAD Operator**	High School	3	Drafts detailed drawings, topographical profiles, and related maps and specifications used in planning, maintenance and construction projects. May plot maps and charts showing profiles and cross-sections, indicating relation of topographical contours and elevations to buildings. Drafts detailed drawings of structures and installations using computer-assisted drafting tools. May accompany survey crew in field to locate grading markers or to collect data required for revision of drawings.
Carpenter, Maintenance**	High School	8	The Carpenter, Maintenance performs the carpentry duties necessary to maintain in good repair, building woodwork and equipment such as bins, cribs, counters, benches, partitions, doors. Work involves: planning and laying out of work from blueprints, drawings, models, and verbal instructions. Using a variety of carpenter's hand tools, portable power tools and standard measuring instruments, this position makes standard shop computations relating to dimensions of work, and selects materials necessary for the work. In general, the work of the maintenance carpenter requires well-rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.
Chief Engineer	High School	7	Plans, coordinates and oversees work by assigned staff to effectively and efficiently accomplish operations, preventive maintenance and repair services. May be responsible for maintaining a computerized maintenance management system (CMMS). Provides engineering services with respect to newly installed equipment and systems. Participates in the development and of preventive maintenance schedules, operational procedures manuals, and may be responsible for developing an effective training program for subordinate staff.
Computer Aided Facilities Management Tech.	Associates	3	Responsible for maintaining the computer aided facilities management (CAFM) system to include current and future floor plans, space attributes, and data elements as well as the physical asset inventories or assigned facilities. Responsibilities may include performing data collection and data entry of information gathered from site surveys to include architectural floor plans and bar coding and scanning of assets as well as performing design and revisions for CAFM records.
Construction Manager I	Bachelors	4	Prepares and negotiates cost estimates, budgets, and work timetables. Reports on work progress and budget matters to clients. Collaborates with architects, engineers, and other construction and building specialists Responds to work delays and other problems and emergencies. Complies with legal requirements, building and safety codes, and other regulations.

Labor Category	Min EDU	Min EXP	Description
Construction Manager II	Bachelors	8	Prepares and negotiates cost estimates, budgets, and work timetables. Reports on work progress and budget matters to clients. Collaborates with architects, engineers, and other construction and building specialists Responds to work delays and other problems and emergencies. Complies with legal requirements, building and safety codes, and other regulations. Selects appropriate construction methods and strategies. Interprets and explains contracts and technical information to workers and other professionals. Instructs and supervises construction personnel and activities onsite. Selects, hires, and instructs laborers and subcontractors.
Construction Manager III	Bachelors	10	Prepares and negotiates cost estimates, budgets, and work timetables. Reports on work progress and budget matters to clients. Collaborates with architects, engineers, and other construction and building specialists. Responds to work delays and other problems and emergencies. Complies with legal requirements, building and safety codes, and other regulations. Selects appropriate construction methods and strategies. Interprets and explains contracts and technical information to workers and other professionals. Instructs and supervises construction personnel and activities onsite. Selects, hires, and instructs laborers and subcontractors. Supervises Construction team and projects.
Construction Principal	Bachelors	12	Most Senior Construction supervisory position. Serves as a construction subject matter expert. Collaborates with architects, engineers, and other construction and building specialists. Responds to work delays and other problems and emergencies. Complies with legal requirements, building and safety codes, and other regulations. Selects appropriate construction methods and strategies. Interprets and explains contracts and technical information to workers and other professionals. Instructs and supervises construction personnel and activities onsite. Selects, hires, and instructs laborers and subcontractors. Supervises Construction team and projects.
Consultant I	Bachelors	8	Serves as a Project Manager or Functional Specialist on projects related to an area of relevant management consulting such as property management, portfolio management, program management, workplace solutions, financial strategy and operations including public/private partnerships, technology services and strategies, financial management, or a related field.
Consultant II	Bachelors	10	Serves as a Project Manager or Functional Specialist on projects related to an area of relevant management consulting such as property management, portfolio management, program management, workplace solutions, financial strategy and operations including public/private partnerships, technology services and strategies, financial management, or a related field.
Consultant III	Masters	12	Serves as a Project Manager or Functional Specialist on projects related to an area of relevant management consulting such as property management, portfolio management, program management, workplace solutions, financial strategy and operations including public/private partnerships, technology services and strategies, financial management, or a related field. Provides direction to Consultant I and II
Custodian/Housekeeper**	High School	0	Maintains premises in a clean and orderly manner. Cleans offices, patients'/residents' rooms, classrooms, schools, common areas, lavatories, halls, food service areas and any other areas that require attention. Cleans light fixtures, ceilings and vents, walls, mattresses, furniture, windows and window coverings, floors and carpets. Cleans by dusting, mopping, vacuuming, and sweeping. Replenishes supplies. Moves furniture, and sets-up tables and chairs.
Designer I	Bachelors	2	Works with the Senior Architect, the Project Manager and Senior Designer to review plans and project documentation to ensure adherence to corporate guidelines Applies engineering skills and abilities to complete necessary calculations to determine feasibility of different design options. Provides test fits, space utilization planning, functional relationships, and office and furniture layouts.
Designer II	Bachelors	4	Provides leadership developing complex solutions for planning, architectural and interior designs. Plans, designs, reviews and coordinates complex engineering or design tasks in support of project delivery. Applies engineering skills and abilities to complete necessary calculations to determine feasibility of different design options. Provides test fits, space utilization planning, functional relationships and office and furniture layouts.
Designer III	Bachelors	6	Provides leadership developing complex solutions for planning, architectural and interior designs. Plans, designs, reviews and coordinates complex engineering or design tasks in support of project delivery. Provides test fits, space utilization planning, functional relationships and office and furniture layouts.
Drivers – Straight Truck (Liftgate & Van)**	High School	2	Must maintain a clean license and pass DOT medical exams. Must have the ability to read, understand and follow all D.O.T. regulations. Must complete all required paperwork including driver logs.
Electrical Engineer	Bachelors	15	Leads the electrical system design, construction management, commissioning, testing, and maintenance. Supports complex projects requiring the integration of multiple disciplines and diverse outputs. Applies knowledge across key tasks involving high impact assignments and supports technology assignments.
Electrician I	High School	5	Install, maintain, and repair electrical wiring, equipment, and fixtures associated with furniture installation, reconfiguration and repair. Electrician will ensure that all work is in accordance with relevant codes and practices.



Labor Category	Min EDU	Min EXP	Description
Electrician II	High School	10	Performs electrical and lighting system installation as necessary for turnkey energy and smart building systems integration projects. Oversees and self-performs a variety of electrical trade functions including the installation, maintenance, and repair of equipment. Responsible for locating and diagnosing problems in the electrical system or equipment, installing and repairing equipment, and working standard computations relating to load requirements of wiring or electrical equipment. Skilled with a variety of electrician's hand tools, measuring and testing instruments, and reading engineering drawings. Licensed Electrician.
Electrician, Maintenance**	High School	8	An Electrician performs a variety of electrical trade functions such as the installation, maintenance, or repair of equipment for the generation, distribution, or utilization of electric energy. Work involves most of the following: installing or repairing any of a variety of electrical equipment such as generators, transformers, switchgear, controllers, circuit breakers, motors, heating units, conduit systems, or other transmission equipment. They work from blueprints, drawings, layouts, or other specifications, locating and diagnosing trouble in the electrical system or equipment. Working standard computations relating to load requirements of wiring or electrical equipment, they use a variety of electrician's hand tools and measuring and testing instruments. In general, the work of the maintenance electrician requires rounded training and experience usually acquired through a formal apprenticeship or equivalent training and experience.
Energy Consultant I	Bachelors	3	Assists in providing technical consulting to managers and supervisors for energy and carbon management and auditing program support. Assists in the analysis of programmatic, organizational, and operational requirements, and assessment of needs. Provides research and analytical support during strategic planning, auditing, and life cycle cost analysis.
Energy Consultant II	Bachelors	5	Directs or assists in energy and carbon management programs, projects, and management systems. Helps develop energy programs, plans, and projects in support of agency and installation energy management programs. Supports customers in evaluating energy choices, including technical and economic analyses of alternatives. Provides risk management services to minimize the impact of price uncertainties. Assists customers in carrying out statutory programs, managing energy data collection and reporting systems, and preparing reports.
Energy Consultant III	Bachelors	8	Assists agencies and installations in developing, executing, and reporting their energy and carbon implementation plan activities. Develops energy plans and strategies, supports energy choice analyses, and provides risk management services. Provides energy metering and data management services, manages and analyzes utility billings, and helps improve customer bill processing systems. Assists agencies in preparing statements of work for energy management projects, provides measurement and verification services, and helps customer agencies take advantage of rebate programs, alternative financing and utility-provided energy efficiency programs.
Engineer I	Bachelors	2	Provides basic technical assistance in engineering under the supervision of more experienced personnel.
Engineer II	Bachelors	6	Provides more advanced technical assistance and trouble shooting in engineering, may supervise junior engineering staff.
Engineer III	Bachelors	8	Devises tests to evaluate and check systems. Performs and documents the results of complex analyses and design tasks. May design complex systems and act as a project manager.
Engineering Principal	Masters	12	Devises tests to evaluate and check systems. Performs and documents the results of complex analyses and design tasks. Designs complex systems and acts as a project manager. Supervises Engineering positions and interacts with client and company leadership.
Environmental Health & Safety Supv.	Bachelors	8	Inspects work sites, machinery, equipment or properties for hazards, violations and conformance with government standards. Analyzes unsafe conditions and assigns ratings according to established factors. Observes work activities and practices to determine compliance with safety precautions and safety equipment used. Evaluates voluntary compliance and effectiveness of safety program, using established goals. Test noise levels, measures air quality, using precision instruments. Confers with management to ensure compliance with regulations and demonstrate use of safety equipment and first aid procedures. Recommends changes in policy and procedures to prevent accidents and illness. Investigates accidents to ascertain causes and analyzes history of accidents and claims to develop accident prevention programs. Maintains records and prepares reports of findings, violations and recommendations for corrective action. Develops and conducts training to promote Occupational Safety and Health programs.
Facilities Management Specialist I	Associates	2	Performs administrative support tasks of a non-routine and non-repetitive nature. Monitors projects and finances for members of an assigned functional unit. Performs professional level tasks, both formal and informal requiring independent judgment, initiative and tact; determines method of collection and analysis for assigned projects; and prepares complex briefings. Coordinates administrative work within the secretarial and clerical support group. Responsible for preparing various reports, making recommendations for actions, project administration, event planning, office relocation planning, and other duties as assigned.

Labor Category	Min EDU	Min EXP	Description
Facilities Management Specialist II	Bachelors	6	Provides facility management services in support of customer's operational, compliance, and security requirements. Functions as member of the integrated facility support team providing assistance, data entry and retrieval in the area of configuration management, data management, operations, training, testing, transportation, reliability, and maintainability. Responsible for participating in periodic audits and systems configuration verification and maintains program data and provisioning files.
Facilities Management Specialist III	Bachelors	10	Supports the management of all aspects of a single property or portfolio of properties that include real estate, operations and financial activities. Assists with the improvement of building performance, delivery of greater efficiency, maximizing facility resource investments, and helping build a smarter infrastructure platform for facility operations. Conducts facility planning, performance metric development, workforce planning and needs analysis, integrated operations and maintenance, enterprise Asset Management System planning, deployment and analysis, reliability centered maintenance program development, and develops and oversees the implementation of facility and infrastructure projects.
Furniture Technician**	High School	3	Ability to repair all merchandise and has an above average working knowledge of wood and upholstered goods. Has a thorough and broad understanding of Systems Furniture installation techniques of various manufacturers. The technician will install, repair, service and inspect damaged furniture both on and off-site.
General Clerk I**	High School	1	Under limited supervision, assists in the storage of various government and company documents by cataloging, indexing, identifying and marking for efficient retrieval. Maintains locator records for each document to determine its location. Assists with correspondence, reports or forms from rough or complicated draft, involving unusual or technical terms; proofreads material to verify accuracy; performs clerical duties which includes maintenance of files, answering telephone and arranging appointments; operates standard office machines and assists management in producing various reports.
General Clerk II**	High School	3	Follows a number of specific procedures in completing repetitive clerical steps performed in a prescribed or slightly varied sequence, such as coding and filing documents in an extensive alphabetical file, simple posting to individual accounts, opening mail, running mail through metering machines, and calculating and posting charges to departmental accounts. Little or no subject-matter knowledge is required, but the clerk must choose the proper procedure for each task.
General Clerk III**	High School	5	Under limited supervision, will assist in the storage of various government and company documents by cataloging, indexing, identifying and marking for efficient retrieval. Maintains locator records for each document to determine its location. Assists with correspondence, reports or forms from rough or complicated draft, involving unusual or technical terms; proofreads material to verify accuracy; performs clerical duties which includes maintenance of files, answering telephone and arranging appointments; operates standard office machines and assists management in producing various reports.
General Maintenance Worker**	High School	0	The General Maintenance Worker performs general maintenance and repair of equipment and buildings requiring practical skill and knowledge in such trades as painting, carpentry, plumbing, masonry, and electrical work. Work involves a variety of the following duties: replacing electrical receptacles, wires, switches, fixtures, motors, plaster or compound to patch minor holes and cracks in walls and ceilings, repairing or replacing sinks, water coolers, and toilets, painting structures and equipment; repairing or replacing concrete floors, steps, and sidewalks, replacing damaged paneling and floor tiles, hanging doors and installing door locks, replacing broken window panes, and performing general maintenance on equipment and machinery. Excluded are: a. Craft workers included in a formal apprenticeship or progression program based on training and experience; b. Skilled craft workers required to demonstrate proficiency in one or more trades; c. Workers performing simple maintenance duties not requiring practical skill and knowledge of a trade (e.g., changing light bulbs and replacing faucet washers)
GIS/CAD Specialist	High School	10	Manages data analysis and creation of various maps for incorporation into reports and or presentations. Leads the development of GIS, AutoCAD, and database software at a senior level.
Grounds Maintenance Laborer**	High School	0	Mows lawns and trims grass around walks, flower beds and walls. Prunes shrubs and trees to shape and improve growth. Removes damaged leaves, branches, and twigs using mowers, tractors and other hand and power tools. Lays out and tends flower beds or other decorative vegetation. Maintains and sharpens tools and makes minor repairs on equipment, as needed. Plants, fertilizes, waters and uses herbicides and insecticides to maintain grass, flowers, trees and shrubs. Removes snow and ice from walks and driveways. Spreads salt, picks up litter, rakes and bags leaves. Cleans drainage ditches and culverts. Maintains driveways and parking lots. Repairs fences, gates, walls, walks and outbuildings using carpentry, masonry and painting tools. Performs routine cleaning and maintenance on gardening and grounds equipment. May operate trucks and assorted power equipment.

Labor Category	Min EDU	Min EXP	Description
Housekeeping Custodial Lead	High School	3	Serves as lead housekeeper maintaining premises in a clean and orderly manner. Clean offices, patients'/residents' rooms or classrooms, schools, common areas, lavatories, halls, food service areas and any other areas that require attention. Cleans light fixtures, ceilings and vents, walls, mattresses, furniture, windows and window coverings, floors and carpets. Cleans by dusting, mopping, vacuuming, and sweeping. Replenishes supplies. Moves furniture, hangs draperies, and sets-up tables and chairs.
Housekeeping Custodial Supervisor	High School	5	Supervises appearance care workers engaged in keeping buildings, equipment, and premises clean and orderly. Conducts periodic inspections of buildings to review work standards. Responsible for the design, implementation, execution and measurement of LEED initiatives as it pertains to Appearance Care. Plans and supervises employee safety and training programs. Prepares written disciplinary actions, memos, and employee performance appraisals. Monitors expenditures, and acts as liaison with tenants, contractors, and vendors. Interacts with other divisions regarding conditions. Demonstrates continuous effort to improve operations, decrease turnaround times, streamline work processes, and work cooperatively and jointly to provide quality seamless customer service. Perform a broad range of supervisory responsibility over a multi-shift operation. Observe, compare, or monitor data, objects and people's behavior to determine compliance to safety and operating standards. Perform physical inventories.
HVAC Mechanic**	High School	8	The Heating, Ventilation, and Air-Conditioning Journeyman Mechanic installs, services and repairs environmental-control systems in residences, department stores, office buildings, and other commercial establishments. This includes utilizing the knowledge of refrigeration theory, pipefitting and structural layouts, mounts compressor and condenser units on platform or floor, the use of hand tools, following blueprints or engineering specifications, equipment, and installs evaporator unit in chassis or in air-duct system, using hand. This mechanic also cuts and bends tubing to correct length and shape, using cutting and bending equipment and tools, cuts and threads pipe, uses machine- threading or hand-threading equipment, joins tubing or pipes to various refrigerating units by means of sleeves, couplings or unions, and solders joints, using torch, forming complete circuit for refrigerant, and installs expansion and discharge valves in circuit. This worker connects motors, compressors, temperature controls, humidity controls, and circulating ventilation fans to control panels and connects control panels to a power source. The HVAC mechanic additionally installs air and water filters in completed installation, injects small amount of refrigerant into compressor to test systems and adds Freon gas to build up prescribed operating pressure. This mechanic observes pressure and vacuum gauges, adjusting controls to insure proper operation, tests joints and connections for gas leaks, using gauges or soap-and-water solution, wraps pipes in insulation batting securing them in place with cement or wire bands. They also replace defective breaker controls, thermostats, switches, fuses and electrical wiring to repair installed units. And finally, repair and service air conditioners, ranging from fifteen to twenty tons cooling capacity in warehouses and small factory buildings. fabricates, assembles and installs ductwork and chassis parts, uses portable metalworking tools and welding
Installation Technician	Associates	3	Performs installation and troubleshooting of furniture systems, cables, computer voice and data equipment, and peripherals. Reads, interprets, and implements schematic drawings for installation purposes.
Interior Designer I	Bachelors	2	Supports design efforts with field measurements, electrical and ceiling surveys, space planning and development of furniture systems solutions under the supervision of an Interior Designer and/or Space Planner. May assist in Computer Aided Design (CAD) documentation and material selection, finish selections, and furniture procurement.
Interior Designer II	Bachelors	4	Provides leadership developing complex solutions for planning, architectural and interior designs. Plans, designs, reviews and coordinates complex engineering or design tasks in support of project accomplishment. Applies engineering skills and abilities to complete necessary calculations to determine feasibility of different design options. Provides space utilization planning, functional relationships, office and furniture layouts, and design finish options.
IT Specialist	Bachelors	6	Provides strategic guidance to other technical staff in areas such as specifications, architectures, and information system design. Researches developments in field of expertise and applies them to the client environment, including emerging technologies, lessons learned, best practices, and assessment methodologies. Interfaces with client personnel at all organizational levels.

Labor Category	Min EDU	Min EXP	Description
Laborer**	High School	0	The Laborer performs tasks that require mainly physical tasks and effort involving little or no specialized skill or prior work experience. The following tasks are typical of this occupation: loads and unloads trucks, and other conveyances, moves supplies and materials to proper location by wheelbarrow or hand truck; stacks materials for storage or binning, collects refuse and salvageable materials, digs, fills, and tamps earth excavations. The Laborer levels ground using pick, shovel, tamper and rake, shovels concrete and snow; cleans culverts and ditches, cuts tree and brush; operates power lawnmowers, moves and arranges heavy pieces of office and household furniture, equipment, and appliance, moves heavy pieces of automotive, medical engineering and other types of machinery and equipment, spreads sand and salt on icy roads and walkways, and picks up leaves and trash.
Locksmith**	High School	2	Installs, repairs, rebuilds, and services mechanical or electrical locking devices, using hand tools and special equipment. Disassembles locks, such as padlocks, safe locks, and door locks, and repairs or replaces worn tumblers, springs, and other parts. Inserts new or repaired tumblers into lock to change combination. Cuts new or duplicate keys, using key cutting machine. Moves lock pick in cylinder to open door locks without keys. Opens safe locks by drilling. May keep records/key control of company locks and keys.
Logistics Specialist I	Bachelors	3	Plans, develops and executes logistic program activities from conceptual stage through life cycle of product. Develops and implements logistics program activities including technical documentation, RAM, provisioning, etc.; coordinates efforts of subcontractors and field service personnel; resolves logistics problems; and compiles data on standardization and interchangeability of parts to expedite logistic activities.
Logistics Specialist II	Bachelors	5	Supports the program manager and task managers in the performance of logistics technical analyses. This includes the review of logistics policy and guidance, development of logistics support plans, and providing input to other acquisition milestone documentation. Provides support and logistics expertise to logistics strategic planning efforts, business process reengineering efforts, and various financial analyses. Assist in the conduct of specific technical analyses such as capacity planning, warehousing analyses, and transportation analysis. Assists in the conduct of system design alternatives analysis and other logistics analyses.
Logistics Specialist III	Bachelors	8	Provides high-level consultation support to task personnel involved in performing tasking associated with logistics engineering, analytical, or acquisition projects. Provides guidance on the preparation of integrated logistic plans and policies and procedures for logistic support. Ensures that proper logistic considerations are included in development processes at each major milestone. Develops systems maintenance concepts and plans and life-cycle supply requirements and processes to meet supply requirements. Performs analyses to determine maintainability, reliability, and supportability requirements. Documents results of the analysis in a report format. Performs cost analyses associated with logistic support and develops and reviews acquisition operating plans and procedures to ensure logistic support considerations are included. Performs technical training and quality assurance. Provides oversight and guidance to junior logistics personnel.
Maintenance Scheduler**	High School	3	Coordinates activities of maintenance workers or service employees engaged in cleaning and/or maintaining large, more complex facilities of commercial, health care facility, school, residence hall, or other establishments. Maintains preventive maintenance programs within the computerized maintenance management system. Assists in ensuring a safe working environment throughout the facility for all employees. Assists in monitoring employee productivity and provides suggestions for increased service or productivity. Assists in the supervision of day- to-day activities of subordinates and assigns responsibility for specific maintenance, work orders or functional activities.
Maintenance Trades Helper**	High School	0	The Maintenance Trades Helper assists one or more workers in the skilled maintenance trades by performing specific or general duties of lesser skill such as: keeping a worker supplied with materials and tools, cleaning working area, assisting the journeyman by holding materials or tools; and performing other unskilled tasks as directed by journeyman. The kind of work the helper is permitted to perform varies from trade to trade. In some trades the helper is confined to supplying, lifting, holding materials and tools, cleaning working areas and in others cases, the worker is permitted to perform specialized machine operations, or parts of a trade that are also performed by workers on a full-time basis.
Manager I	Bachelors	4	Manages all aspects of a complex project including managing people, projects and budgets, research and development or enhancement of products, processes, or designs; determining equipment needs, creating detailed plans for reaching technical goals. Resolve technical problems; creating detailed plans and solutions to reach technical goals; setting administrative policies and procedures; ensure technical accuracy. May be involved with construction engineering management, industrial engineering management or engineering project management.

Labor Category	Min EDU	Min EXP	Description
Manager II	Bachelors	8	Manages all aspects of a complex project including managing people, projects and budgets, research and development or enhancement of products, processes, or designs; determining equipment needs, creating detailed plans for reaching technical goals. Resolve technical problems; creating detailed plans and solutions to reach technical goals; setting administrative policies and procedures; ensure technical accuracy. May be involved with construction engineering management, industrial engineering management or engineering project management.
Manager III	Bachelors	10	Manages all aspects of a complex project including managing people, projects and budgets, research and development or enhancement of products, processes, or designs; determining equipment needs, creating detailed plans for reaching technical goals. resolve technical problems; creating detailed plans and solutions to reach technical goals; setting administrative policies and procedures; ensure technical accuracy. May be involved with construction engineering management, industrial engineering management or engineering project management. Provides direction to Manager I and II
Manager IV	Masters	12	Provides expertise on complex project budgets, research and development or enhancement of products, processes, or designs; resolving technical problems; designing complex approaches and solutions to reach technical goals; ensure technical accuracy. May be involved with construction engineering management, industrial engineering management or engineering project management Supervises positions and interacts with client and company leadership
Move Supervisor	High School	3	Responsible for the coordination of all aspects of the relocation/move project from marking and tagging to packing, delivery, installation and supervision of all manpower assigned. Responsible for the project being completed on time in a professional manner. Reports directly to the Project Manager.
Network SME	Bachelors	12	Responsible for surveying the IT infrastructure network, inclusive of providing network drawings and an inventory of network devices. Accomplishes and supports work in a team environment and manages an array of technical issues for the customer and project teams. Participates in all team meetings and provides installation and onsite support to customers, and resolves issues effectively and within project timeframes and budgets.
Operations Manager	High School	10	Plans, directs, and/or coordinates the site contract activities and operations ensuring that goals, objectives and projects are accomplished within schedule and budget. Diverse duties and responsibilities include formulating site policies, managing daily operations, planning the use of materials and human resources, overall supervision of site personnel, contract signing authority, and acting as the representative to the government on all contractual issues.
Planner/Scheduler/Inventory	Bachelors	4	Coordinates relocation plans and schedules with other crafts and trade persons. These services will be provided and completed with maximum cost efficiency and minimum business disruption. Provide temporary and long-term furnishings, warehousing, and ensuring proper accountability of items in storage.
Plumber Maintenance**	High School	8	This position assembles, installs and repairs pipes, fittings and fixtures of heating, water, and drainage systems, according to specifications and plumbing codes, studies building plans and working drawings to determine work required, and sequence of installations. This worker inspects structure to ascertain obstructions to be avoided to prevent weakening of structure resulting from installation of pipe, and locates and marks position of pipe and pipe connections and passage holes for pipes in walls and floors. This worker cuts openings in walls and floors to accommodate pipe and pipe fittings, using hand tools and power tools, cuts and threads pipe, uses pipe cutters, cutting torch, and pipe-threading machine, bends pipe to required angle by use of pipebending machine, or by placing pipe over block and bending it by hand. The Plumber, Maintenance assembles and installs valves, pipefittings, and pipes composed of metals, such as iron, steel, brass and lead, and nonmetals, such as glass, vitrified clay, and plastic. This person joins pipe by use of screws, bolts, fittings, solder, plastic solvent, and caulks joints, fills pipe system with water or air and reads pressure gauges to determine whether system is leaking, installs and repairs plumbing fixtures, such as sinks, commodes, bathtubs, water heaters, hot water tanks, garbage disposal units, dishwashers, and water softeners. This person repairs and maintains plumbing by replacing washers in leaky faucets, replacing burst pipes, and opening clogged drains, and may weld holding fixtures to steel structural members.
Principal I	Bachelors	15	Corporate manager responsible for analyzing, planning, directing, and coordinating activities of designated projects and organizations within the business. Ensures that goals and objectives of those projects and organizations are accomplished within prescribed time frames and budgets. Provides management, organizational, and improvement services that include organizing and planning strategies, data analysis and risk management, financial management and management and program oversight.

Labor Category	Min EDU	Min EXP	Description
Principal II	Bachelors	18	Senior corporate manager responsible for the management, direction, and operation of major aspects of the business. Provides executive-level expert guidance and direction to single or multiple program areas. Manages complex organizations and teams by integrating skills into client-focused, results-oriented consulting solutions. Integrates technical requirements and solutions into business process reengineering requirements and translates concepts into operational improvements and systems.
Program Manager	Bachelors	10	Oversees cradle-to-grave program management, providing detailed program plans and project assignments for staff members. Responsible for implementation and execution of the Quality Control Plan, working closely with clients, Senior Principal, Principal, and Project Managers.
Project Coordinator	Associates	5	Carries out the technical execution of project requirements, in addition to providing mentorship and training to subordinate personnel. May be responsible for collection of asset data, furniture installation, IT disconnect/reconnect, document control, or move management activities.
Project Director	Bachelors	12	Responsible for one or more business lines. Has exceptional skills in client relations, assessing needs and requirements, the application of exceptional technical and/or business skills, and detailed knowledge of company resources. Conducts high level review of project deliverables. Reports to Principal. Responsible for analyzing, planning, directing, and coordinating activities of designated projects and organizations. Ensures that goals and objectives of those projects and organizations are accomplished within prescribed time frames and budgets. Provides management, organizational, and process improvement services that include planning, strategies, choice analysis, performance optimization, and risk management.
Project Engineer I	Bachelors	2	Provides research, data collection, and analysis in support of project task requirements. Assist with technology assignments. Technical work including site surveys, concept designs, energy analysis, project costing, cost analysis, energy modeling, system monitoring, and system troubleshooting. Performs work with substantial supervision.
Project Engineer II	Bachelors	6	Assists with complex projects requiring the integration of multiple disciplines and diverse outputs. Applies knowledge across key tasks and high impact assignments. Assists with technology assignments. Technical work includes site surveys, control system programming, control system installation, concept designs, energy analysis, project costing, cost analysis, energy modeling, system monitoring, and system troubleshooting. Supports the evaluation of performance results and recommends changes affecting performance.
Project Engineer III	Bachelors	10	Performs complex projects requiring the integration of multiple disciplines with diverse outputs. Applies knowledge across key tasks and high impact assignments. Supports technology assignments, evaluates performance results and recommends changes affecting performance.
Project Manager I	Bachelors	8	Manages financial systems and oversees administrative contractual requirements. Tracks budgets for projects and communicates frequently internally and externally with the senior principal and principal and externally with the client regarding adherence to budgets and contract terms and conditions. Provides financial forecasts and reviews past performance with the client regarding funding. Also responsible for all procurement and subcontract management on a project. Manages and oversees activities of project team.
Project Manager II	Bachelors	12	Directs complex projects requiring integration of refined engineering techniques with the outputs of other disciplines, such as environmental, engineering, energy, and law. Provides management, organizational, and environmental services that include planning and strategies, consulting and analysis, compliance and risk management, and management oversight.
Purchasing Specialist	Bachelors	3	Purchases assigned materials, supplies, and services in support of the project, in a timely manner, at the lowest possible cost and provide advice and information on materials, supplies, and services to all interested parties. Possesses knowledge of purchasing, and procurement methods and procedures.
Relocation Coordinator	Bachelors	3	Provide services required for the reorganization and consolidation of existing facilities, or/ opening new facilities. Services include maintaining project documentation, coordinating schedules, and providing on-site supervision of move activity. Coordinates paperwork and subcontracts involved in relocation project.
Resource Efficiency Manager (REM) 1	Bachelors	2	Provides assistance in identifying and implementing cost saving initiatives in energy, water, and resource conservation. Develops energy, water, and resource conservation projects to reduce costs. Evaluates technical and economic feasibility of energy and resource conservation projects including life cycle and payback analysis. Supports energy and resource conservation awareness programs and conducts field investigations.

Labor Category	Min EDU	Min EXP	Description
Resource Efficiency Manager (REM) 2	Bachelors	6	Helps facilitate the reduction in energy, solid waste, water, and sewer costs. Helps establish highly visible energy and resource conservation programs through awareness campaigns. Provides strong educational support to all occupants at a facility. Reviews the economic and technical feasibility of energy conservation projects, provides project management and coordination for development and implementation of energy conservation projects, including Utility Energy Service Contract (UESC) and Energy Service Performance Contract (ESPC) projects. Supervises field investigations.
Resource Efficiency Manager (REM) 3	Bachelors	8	Manages the reduction in energy, solid waste, water, and sewer costs. Identifies and implements cost saving initiatives in energy, water, and resource conservation. Develops energy, water, and resource conservation projects to reduce costs. Evaluates the technical and economic feasibility of energy and resource conservation projects. Supports energy and resource conservation awareness programs. Helps establish strong energy and resource conservation policies within the organization. Is a technical resource for occupants, building monitors, operations, and maintenance staff, and other stakeholders.
Resource Efficiency Manager (REM) 4	Bachelors	12	Directs a full range of energy management and resource conservation services including identifying potential energy projects, programs, and initiatives; supporting project implementation; conducting energy training; developing and sustaining an effective energy awareness program; supporting demand reduction programs; and coordinating grants and incentives for eligible energy conservation projects.
Service Order Dispatcher**	High School	2	This position receives, records, and distributes work orders to service crews upon customers' requests for service on. Work includes articles or utilities purchased from wholesale or retail establishment or utility companies, records information, such as name, address, article to be repaired, or service to be rendered, prepares work order and distributes to service crew, schedules service calls and dispatches service crew. The Service Order Dispatcher performs quality control by calling or writing the customer to insure satisfactory performance of service, keeps record of service calls and work orders, may dispatch orders and relay messages and special instructions to mobile crews and other departments using radio or cellular telephone equipment.
Space Planner	Bachelors	3	Reviews and assesses space available within buildings. Determines space requirements for current personnel. Coordinates cubicle modifications and personnel movement. Performs space configuration/fit tests/cost tradeoffs and analyses.
Subject Matter Expert I	Bachelors	10	Provides expert technical and managerial guidance and direction for problem definition, analysis, requirements development, and implementation for extremely complex program and business issues. Makes recommendations and advises on organization-wide improvements, optimization or maintenance related issues.
Subject Matter Expert II	Bachelors	12	Provides expert technical and managerial guidance and direction for problem definition, analysis, requirements development, and implementation for extremely complex program and business issues. Makes recommendations and advises on organization-wide improvements, optimization or maintenance related issues.
Subject Matter Expert III	Masters	15	Provides expert technical and managerial guidance and direction for problem definition, analysis, requirements development, and implementation for extremely complex program and business issues. Makes recommendations and advises on organization-wide improvements, optimization or maintenance related issues.
Systems Administrator	Bachelors	5	Oversees plans for automated data processing systems from project inception to conclusion. Analyzes user needs to determine requirements and conducts feasibility studies. Identifies resources required for each task. May supervise support staff and/or serve as liaison to client staff. Develops white papers and system documentation. Converts functional specifications to technical specifications. Works independently without direct supervision.
Systems Integration SME	Bachelors	10	Responsible for supporting the integration of various building control systems and has extensive knowledge of building network protocols. The SME helps customers and project teams manage the complexity inherent with technology change, from requirements planning to architecture, from testing to deployment, and links their IT programs to organizational goals
Technical Writer	Bachelors	5	Working with technical specialists, writes reports, manuals, training courses, and other documents, and ensures quality of those documents written by others. Reviews grammar, writing style, and syntax of documentation.
Telecommunications Technician	Associates	5	Provides remote and onsite technical support of all types of telecommunication technology products. Provides on-site dispatch technical assistance for trouble resolution and field support.
Warehouse Specialist**	High School	2	As directed, the Warehouse Specialist performs a variety of warehousing duties that require an understanding of the establishment's storage and inventory plan. Work involves most of the following: verifying materials (or merchandise) against receiving documents, noting and reporting discrepancies and obvious damages, routing materials to prescribed storage locations; storing, stacking, or palletizing materials in accordance with prescribed storage methods, rearranging and taking inventory of stored materials, examining stored materials and reporting deterioration and damage, removing material from storage and preparing it for shipment. This worker may operate hand or power trucks in performing warehousing duties.

Labor Category	Min EDU	Min EXP	Description
Workplace Program Manager	Bachelors	8	Oversees programs to ensure activities are carried out in accordance with established contract specifications, schedules, and budgets; coordinates interdepartmental functions to minimize delays; meets with program team members on a regular basis to review program status and plan future actions. Supervises programs/projects from inception through completion. Establishes milestones and monitors adherence to master program plans and schedules. Serves as the primary customer point of contact for all program activities including leading program review sessions with customer to discuss cost, schedule, and technical performance. Performs new business development, and client/customer relationship management. Provides budget forecasting and prepares high-level project proposals and pricing.
Workplace Project Manager I	Bachelors	3	Under general direction, oversees the operational planning, establishment, execution, and evaluation of a multifaceted program/project consisting of a set of closely related subprograms or associated activities. Oversees fiscal, operational, administrative, and human resources management of the program; serves as principal point of representation and liaison with external constituencies on operational matters and provides day-to-day technical/professional guidance and leadership. Duties include participation/documentation of interview process, procurement process management, vendor coordination, project records managements, and move/equipment furniture installation management.
Workplace Project Manager II	Bachelors	7	Under indirect supervision, oversees the operational planning, establishment, execution, and evaluation of a multifaceted program/project typically consisting of a set of closely related subprograms or associated activities. Oversees fiscal, operational, administrative, and human resources management of the program; serves as principal point of representation and liaison with external constituencies on operational matters and provides day-to-day technical/professional guidance and leadership as appropriate to the area of expertise. Provides training and technical direction of junior personnel.
Workplace Project Manager III	Bachelors	8	Provides effective leadership and management to projects, ensuring quality performance by the project team and the company as a whole. Expert knowledge of the planning, budgeting and design processes, including all phases of strategic/operational/logistical planning/budgeting, procurement strategy and implementation, end user, project team and public communications and close out. Responsible and accountable for all facets of project performance, including technical/professional, financial and client satisfaction. Key representative of the company to clients and the public. Provides training and technical direction of junior personnel.
Workplace Project/Program Executive	Bachelors	13	Senior level position with the responsibility of ensuring the client's ability to deliver high quality services in a timely, efficient, effective and profitable manner. Authority to enter into contracts for professional services, with ultimate responsibility for project completion in accordance with contractual requirements. Serves as a senior, in-house technical expert.



## EDUCATION/EXPERIENCE SUBSTITUTIONS

Labor Category	PhD	Masters	Bachelors	Associate	High School
Administrative Assistant**	0	0	0	2	4
Analyst I	0	1	3	5	7
Analyst II	1	3	5	7	9
Analyst III	4	6	8	10	12
Application Developer I	1	3	5	7	9
Application Developer II	6	8	10	12	14
Application SME	6	8	10	12	14
Asset/Property Manager I	0	0	2	4	6
Asset/Property Manager II	1	3	5	7	9
Asset/Property Manager III	4	6	8	10	12
Building Controls Programmer	4	6	8	10	12
Building Controls System Specialist	0	0	0	0	2
Building Manager I	0	1	3	5	7
Building Manager II	1	3	5	7	9
Building Manager III	4	6	8	10	12
Building Manager IV	6	8	10	12	14
Cable Installer	0	0	0	2	4
Cad & Architectural Design Specialist	1	3	5	7	9
CAD Designer**	0	0	1	3	5
CAD Operator**	0	0	0	1	3
Carpenter, Maintenance**	0	2	4	6	8
Chief Engineer	0	1	3	5	7
Computer Aided Facilities Management Tech.	0	0	1	3	5
Construction Manager I	0	2	4	6	8
Construction Manager II	4	6	8	10	12
Construction Manager III	6	8	10	12	14
Construction Principal	8	10	12	14	16
Consultant I	4	6	8	10	12
Consultant II	6	8	10	12	14
Consultant III	10	12	14	16	18
Custodian/Housekeeper**	0	0	0	0	0
Designer I	0	0	2	4	6
Designer II	0	2	4	6	8
Designer III	2	4	6	8	10
Drivers – Straight Truck (Liftgate & Van)**	0	0	0	0	2
Electrical Engineer	11	13	15	17	19
Electrician I	0	0	1	3	5
Electrician II	2	4	6	8	10
Electrician, Maintenance**	0	2	4	6	8
Energy Consultant I	0	1	3	5	7
Energy Consultant II	1	3	5	7	9
Energy Consultant III	4	6	8	10	12
Engineer I	0	0	2	4	6
Engineer II	2	4	6	8	10
Engineer III	4	6	8	10	12
Engineering Principal	10	12	14	16	18
Environmental Health & Safety Supv.	4	6	8	10	12
Facilities Management Specialist I	0	0	0	2	4
Facilities Management Specialist II	2	4	6	8	10
Facilities Management Specialist III	6	8	10	12	14
Furniture Technician**	0	0	0	1	3
General Clerk I**	0	0	0	0	1
General Clerk II**	0	0	0	1	3
General Clerk III**	0	0	1	3	5
General Maintenance Worker**	0	0	0	0	0
GIS/CAD Specialist	2	4	6	8	10

Labor Category	PhD	Masters	Bachelors	Associate	High School
Grounds Maintenance Laborer**	0	0	0	0	0
Housekeeping Custodial Lead	0	0	0	1	3
Housekeeping Custodial Supervisor	0	0	1	3	5
HVAC Mechanic**	0	2	4	6	8
Installation Technician	0	0	1	3	5
Interior Designer I	0	0	2	4	6
Interior Designer II	0	2	4	6	8
IT Specialist	2	4	6	8	10
Laborer**	0	0	0	0	0
Locksmith**	0	0	0	0	2
Logistics Specialist I	0	1	3	5	7
Logistics Specialist II	1	3	5	7	9
Logistics Specialist III	4	6	8	10	12
Maintenance Scheduler**	0	0	0	1	3
Maintenance Trades Helper**	0	0	0	0	0
Manager I	0	2	4	6	8
Manager II	4	6	8	10	12
Manager III	6	8	10	12	14
Manager IV	10	12	14	16	18
Move Supervisor	0	0	0	1	3
Network SME	8	10	12	14	16
Operations Manager	2	4	6	8	10
Planner/Scheduler/Inventory	0	2	4	6	8
Plumber Maintenance**	0	2	4	6	8
Principal I	11	13	15	17	19
Principal II	14	16	18	20	22
Program Manager	6	8	10	12	14
Project Coordinator	0	1	3	5	7
Project Director	8	10	12	14	16
Project Engineer I	0	0	2	4	6
Project Engineer II	2	4	6	8	10
Project Engineer III	6	8	10	12	14
Project Manager I	4	6	8	10	12
Project Manager II	8	10	12	14	16
Purchasing Specialist	0	1	3	5	7
Relocation Coordinator	0	1	3	5	7
Resource Efficiency Manager (REM) 1	0	0	2	4	6
Resource Efficiency Manager (REM) 2	2	4	6	8	10
Resource Efficiency Manager (REM) 3	4	6	8	10	12
Resource Efficiency Manager (REM) 4	8	10	12	14	16
Service Order Dispatcher**	0	0	0	0	2
Space Planner	0	1	3	5	7
Subject Matter Expert I	6	8	10	12	14
Subject Matter Expert II	8	10	12	14	16
Subject Matter Expert III	13	15	17	19	21
Systems Administrator	1	3	5	7	9
Systems Integration SME	6	8	10	12	14
Technical Writer	1	3	5	7	9
Telecommunications Technician	0	1	3	5	7
Warehouse Specialist**	0	0	0	0	2
Workplace Program Manager	4	6	8	10	12
Workplace Project Manager I	0	1	3	5	7
Workplace Project Manager II	3	5	7	9	11
Workplace Project Manager III	4	6	8	10	12
Workplace Project/Program Executive	9	11	13	15	17

## COURSE CATALOG

BAS001: Building Automation Systems A to Z	\$ 144.36
<p><b>Min/Max Number of Participants:</b> 1</p> <p><b>Course Length:</b> 20h 7m</p> <p><b>Course Description:</b> Building Automation Systems A to Z is your field guide for navigating a world full of BAS. This course is for new salespersons, technicians, designers, operators, consulting engineers, and project managers. It provides the foundational knowledge for all of our other courses.</p> <p>Course Objectives:</p> <ul style="list-style-type: none"> <li>- Provide a comprehensive reference guide for all things building automation</li> <li>- Understand all aspects of building automation systems</li> <li>- Learn the core knowledge you need to succeed in the field of building automation</li> </ul> <p>Some Key Topics:</p> <ul style="list-style-type: none"> <li>- Develop the fundamental understanding of Heating, Ventilation, and Air Conditioning (HVAC) needed to support your BAS knowledge</li> <li>- Gain the foundational awareness of building automation that is required of every building automation professional</li> <li>- Become a smart buildings expert by gaining a solid understanding of the different types of smart buildings systems and how they work</li> <li>- Make your conversations with information technology (IT) painless by learning the common IT terms, parts, and processes</li> <li>- Learn what the Internet of Things (IoT) is and how it is impacting the world of building automation</li> <li>- Learn the basics of systems integration, what the three types of integration are, and when to perform each type of integration</li> </ul>	
BAS100: Building Automation Fundamentals	\$ 943.07
<p><b>Min/Max Number of Participants:</b> 1</p> <p><b>Course Length:</b> 10h 45m</p> <p><b>Course Description:</b> Building Automation Fundamentals provides the foundational knowledge for all of our other courses. It takes the student through a complete look at BAS components, processes, and use scenarios. The purpose is to provide a foundational set of knowledge upon which the student can build their career.</p> <p>Course Objectives:</p> <ul style="list-style-type: none"> <li>- Posses a foundational knowledge of BAS that will support you throughout the rest of your career</li> <li>- Be prepared for conversations with customers, hiring managers, and other building professionals</li> <li>- Eliminate project delays caused by a lack of familiarity with BAS, so that your projects are delivered on-time and on-budget</li> </ul> <p>Some Key Topics:</p> <ul style="list-style-type: none"> <li>- The 5 different pieces of BAS hardware and how each functions within a full-blown BAS</li> <li>- The 3 different BAS architectures, the pros and cons of each architecture, and how to use each architecture</li> <li>- Learn what points, trends, and alarms are, how and when to use them point naming strategies for your BAS</li> <li>- Learn the three different BAS architectures, the pros and cons of each architecture, and how to use each architecture</li> <li>- Learn what control systems are, why control systems matter, the four different kinds of control systems, and how to tie each control system type into your BAS</li> <li>- Learn what control modes are, how the 7 common control modes work, when to use each control mode, and how to adjust each control mode</li> <li>- Learn what a protocol is, how the 3 most common protocols work, when to use each protocol, and how to use each protocol</li> <li>- Learn the key pieces and parts of an IT system and how each part relates to a BAS</li> <li>- Learn what the main construction documents are, how to use the documents as a BAS professionals, and how to interpret and use BAS controls documents</li> </ul>	

BAS200: Control Sequence Fundamentals	\$ 1,813.60
<p><b>Min/Max Number of Participants:</b> 1</p> <p><b>Course Length:</b> 19h 16m</p> <p><b>Course Description:</b> Control Sequence Fundamentals provides a comprehensive study of HVAC control sequences. This course combines theory with more than a decade's experience working on some of the world's most complex BAS projects. Students will learn the why behind BAS control strategies and will leave with a solid understanding of "how" systems work.</p> <p><b>Course Objectives:</b></p> <ul style="list-style-type: none"> <li>- Master how HVAC systems function and how to control them</li> <li>- Demonstrate knowledge of BAS controls theory in HVAC systems</li> <li>- Develop the ability to make design and programming decisions based on system requirements</li> </ul> <p><b>Key Topics:</b></p> <ul style="list-style-type: none"> <li>- Learn what control sequences are and how control sequences are structured.</li> <li>- Master the step-by-step process of interpreting control sequences.</li> <li>- Create the foundational system knowledge that allows the student to understand the relationship between space control and upstream systems.</li> <li>- Discover the different ways of controlling and conditioning the air stream along with the interrelationships between air systems and water systems.</li> <li>- Learn what hot water systems are, how they are controlled, and how other systems interact with and influence hot water systems.</li> <li>- Gain an awareness of how and why chilled water systems are used, the methods and processes that control chilled water systems, and the limitations of chilled water systems.</li> <li>- Learn what the different strategies for pumping and piping are and how these strategies effect the control and efficiency of water based heating and cooling.</li> <li>- Learn how unitary systems are controlled and how the effect existing building systems.</li> <li>- Learn what a 2-pipe system is and how to properly control building systems that are supplied by 2-pipe systems.</li> </ul>	

BAS210: BAS Protocol Bootcamp	\$ 943.07
<p><b>Min/Max Number of Participants:</b> 1</p> <p><b>Course Length:</b> 6h 51m</p> <p><b>Course Description:</b> BAS Protocol Bootcamp is designed to teach technical BAS professionals everything they need to know about BACnet, Lon, and Modbus in the shortest amount of time possible so that they can effectively design, install, and support systems based on these protocols.</p> <p><b>Course Objectives:</b></p> <ul style="list-style-type: none"> <li>- Learn exactly what you need to know about BACnet, Lon, and Modbus</li> <li>- Improve your ability to execute projects BACnet, Lon, and Modbus</li> <li>- Develop the ability to easily troubleshoot BACnet, Lon, and Modbus</li> </ul> <p><b>Some Key Topics:</b></p> <ul style="list-style-type: none"> <li>- BACnet objects, services, and properties</li> <li>- BACnet/IP settings, design, and troubleshooting</li> <li>- BBMD functionality and scaling BACnet networks</li> <li>- BACnet/MS/TP settings, design, and troubleshooting</li> <li>- Lon nodes, network variables, and configuration parameters</li> <li>- Lon network services, database, and plug-ins</li> <li>- Lon FT-10 and EIA-852 design and topology reviews</li> <li>- Modbus Objects and messaging</li> <li>- Modbus function codes and error codes</li> <li>- Modbus TCP and RTU fundamentals</li> <li>- Modbus registers, coils, and discrete input</li> </ul>	

BAS300: BAS Installation and Configuration	\$ 2,357.68
<p><b>Min/Max Number of Participants:</b> 1</p> <p><b>Course Length:</b> 26h 16m</p> <p><b>Course Description:</b> BAS Installation and Configuration teaches how to install, set up, configure and checkout building automation systems. Utilizing the 32 cheat sheets, checklists, and exercises provided in the course students will follow a controls submittal as they mount, wire, power, configure, and checkout building automation controls and configure the front-end and GUI.</p> <p>Course Objectives:</p> <ul style="list-style-type: none"> <li>- Install and configure supervisory devices, controllers, and inputs and outputs</li> <li>- Configure a full system tree to include point mapping, communication trunks, point extensions, and graphics</li> <li>- Demonstrate the ability to perform point-to-point checkout, functional tests, and documentation closeout</li> </ul> <p>Some Key Topics:</p> <ul style="list-style-type: none"> <li>- Conduct a sales to operations hand off</li> <li>- Create Point-to-point checkout sheets</li> <li>- Understand the impact of loaded and unloaded circuits on controllers</li> <li>- Properly wire power for multiple controllers, inputs, and outputs</li> <li>- Demonstrate how to wire and test dry contact (status), resistive, voltage, and current inputs</li> <li>- Demonstrate how to wire and test internally sourced, externally sourced, voltage, and current outputs</li> <li>- Learn the three different kinds of recovery systems, how they are controlled, and the effect they have on other systems</li> <li>- Describe how to create and complete a functional test</li> <li>- Demonstrate the ability to execute a final closeout check</li> </ul>	

BAS310: Niagara Basics	\$ 943.07
<p><b>Min/Max Number of Participants:</b> 1</p> <p><b>Course Length:</b> 8h 38m</p> <p><b>Course Description:</b> Niagara Basics is a resource that can be utilized in the field to perform day-to-day tasks, Niagara Basics provides on-demand access to a growing library of quality video lessons that guide you through performing the most common Niagara tasks. This course is the perfect resource to help you continue doing your day to day tasks after attending Niagara TCP.</p> <p>Course Objectives:</p> <ul style="list-style-type: none"> <li>-Execute common controls tasks using Niagara Workbench</li> <li>-Design and commission a JACE using Niagara Workbench</li> <li>- Understand the capabilities of Workbench to include: the Niagara Platform, Drives, Services, Graphics, Objects, Extensions, Views, Users, and more.</li> <li>- Demonstrate the ability to write simple programs in wiresheet</li> </ul> <p>Some Key Topics:</p> <ul style="list-style-type: none"> <li>- How to use the commissioning wizard to commission JACEs</li> <li>- How to setup the Niagara Platform Daemon and all of its modules</li> <li>- How to add a JACE to a network</li> <li>- The Niagara object model, facets, folders, and object parameters</li> <li>- How to create e a BACnet trunk and discover BACnet devices and objects</li> <li>- How to setup the Niagara GUI including, graphics, hierarchies, point extensions, bFormatting, and schedules</li> <li>- How to utilize the Niagara Help files</li> <li>- How to write simple programs in wiresheet</li> <li>- How to use the Niagara Palette and how to write simple programs using kitControl</li> </ul>	

**BAS320: PID Tuning Bootcamp**

**\$ 943.07**

**Min/Max Number of Participants: 1**

**Course Length:** 1h 51m

**Course Description:** PID Loop Tuning Bootcamp provides a comprehensive study of PID loops and covers how they function, how to tune, and how to troubleshoot poorly performing PID Loops. It's great for salespersons, technicians, designers, operators, consulting engineers, and project managers who have 6+ months experience with BAS systems or have taken our BAS fundamentals course.

Course Objectives:

- Demonstrate working knowledge of PID Loops and their settings
- Demonstrate the ability to tune and troubleshoot PID loops
- Develop the ability to effectively setup multiple PID loops

Some Key Topics:

- Learn what PID Loops are
- Explore the key parameters for loop tuning
- Discover the process of loop tuning across multiple different versions of software
- Explore the PID Loop troubleshooting methodology
- Watch recorded live PID Loop tuning to truly understand the loop tuning process

**BAS330: Troubleshooting BAS Systems**

**\$ 2,357.68**

**Min/Max Number of Participants: 1**

**Course Length:** 17h 12m

**Course Description:** Troubleshooting BAS Systems teaches how to troubleshoot systems based on SBA's four-step troubleshooting methodology.

Course Objectives:

- Demonstrate how to troubleshoot BAS, IT, and HVAC Control Systems
- Utilize our troubleshooting methodology to troubleshoot common system issues
- Display knowledge of the troubleshooting process and steps through multi-step exercises

Some Key Troubleshooting Topics:

- Resistive, voltage, and current inputs
- Dry, wet, volt DC, and mA outputs
- Circuits and power loads
- Controller configurations
- Serial network wiring and setup
- BACnet MSTP and IP Protocols
- IT networks
- BAS servers and web servers
- Firewalls and ACLs
- Databases
- Control systems and devices for VAVs
- Control Systems for AHUs, Chillers, and Boilers

**BAS340: BACnet Bootcamp**

**\$ 943.07**

**Min/Max Number of Participants: 1**

**Course Length:** 4h 22m

**Course Description:** BACnet Bootcamp provides a full training experience focused on the installation, setup, configuration, and troubleshooting of BACnet IP and MS/TP networks. It's great for salespersons, technicians, designers, operators, consulting engineers, and project managers who have 6+ months experience with BAS systems or have taken our BAS fundamentals course.

**Course Objectives:**

- Learn how BACnet works
- Demonstrate knowledge of configuring BACnet IP and MS/TP networks
- Develop the ability to troubleshoot existing BACnet networks using common troubleshooting tools

**Some Key Topics:**

- Learn the common BACnet object and property types
- Master the ability to troubleshoot BACnet networks
- Understand how to configure BACnet IP and MS/TP systems
- Learn common strategies for increasing BACnet network speed and reliability
- Troubleshoot BACnet networks using Wireshark
- Explore how BACnet services work

**BASIT100: Information Technology for BAS Professionals**

**\$ 943.07**

**Min/Max Number of Participants: 1**

**Course Length:** 34h 21m

**Course Description:** Information Technology for BAS Professionals helps the student be conversational in IT so they can confidently work with IT departments during the sales and/or operational phases of a BAS project.

**Course Objectives:**

- Identify key players within IT organizations and how to handle common IT objections
- Demonstrate awareness of IT concepts to include, networking, databases, servers, remote access, and cybersecurity
- Develop mastery of IT concepts through 28 optional hands-on labs

**Some Key Topics:**

- Learn how IT departments are organized, who you should work within IT to solve BAS problems, and how to get sponsorship from IT to solve your issues.
- Learn the different networking components, what IP addresses are and how they work, how networks function, and much, much more.
- Learn what a database is, how it is used, how data models work, how to ensure that your data types match up, and how to work with IT to get a database server.
- Learn how remote access works, the four kinds of remote access, how to setup remote access, and how to handle IT objections around remote access.
- Learn what cybersecurity is, how a hack happens, the truth about the Target and IoT DDoS attacks, how to secure your BAS, and how to convince IT your BAS is secure.
- Learn what the cloud is, how a BAS can function in the cloud and how to address IT concerns about the cloud.

**BASIT200: IT Networking Bootcamp**

**\$ 943.07**

**Min/Max Number of Participants: 1**

**Course Length:** 3h 22m

**Course Description:** IT Networking Bootcamp provides an understanding of how messages flow within the network. We will look at the journey of a message from one BAS device through a network to another BAS device. In this lesson you will learn about networking terminology, network traffic flow, and network devices.

Some Key Topics:

- IP addressing
- Subnetting
- Network design
- Network troubleshooting
- Network architecture and devices
- IP routing
- Remote connectivity

**BASIT210: IP Controls Design and Implementation**

**\$ 943.07**

**Min/Max Number of Participants: 1**

**Course Length:** 3h 42

**Course Description:** IP Controls Design and Implementation teaches students how to confidently design and install IP Controls. Students will learn how to layout a subnet, create a network riser, and implement the three most common IP architectures. This course also provides foundational knowledge on cybersecurity.

Some Key Topics:

- The fundamentals of IP addresses, subnets, VLANs, and routes
- How to create subnets
- How to create a network riser for your IP controls design
- The implementation of star, bus, and ring architecture
- Basic cybersecurity concepts like (port security, ACLs, IDS, and certificates)



**DES100: BAS Advanced Design**

**\$ 2,357.68**

**Min/Max Number of Participants: 1**

**Course Length: 17h 12m**

**Course Description:** BAS Advanced Design covers the full process of designing a BAS. Students will review mechanical drawings, specifications, and scope of work. The course includes a mock sales to operations hand-off, the creation of a full set of submittal documentation, and covers RFIs, submittal rejection, close out documentation, and advanced design strategies like retrofit and IP controller designs.

Course Objectives:

- Design a complete BAS submittal package from scratch
- Perform key tasks like sales to operations handoffs and information requests
- Interpret design documents to create submittal documents

Some Key Topics:

- Learn the foundational pieces of the design puzzle that are often missed
- Learn the five different pieces of BAS hardware and how each piece functions within a full-blown BAS
- Walk through each step of the BAS design process. By the time you are done you will have produced a full-fledged BAS design (from scratch!)
- Learn the processes for handling submittal rejections and managing the RFI | RFC process
- Learn how to generate close out documentation, manage the as-built consolidation process, and build final O&M packages
- Learn the advanced strategies associated with designing BAS systems that you will encounter on complex BAS projects

**DES200: BAS Hardware Sizing & Selection Bootcamp**

**\$ 2,357.68**

**Min/Max Number of Participants: 1**

**Course Length: 6h 54m**

**Course Description:** BAS Hardware Sizing and Selection Bootcamp covers how to perform takeoffs and system hardware engineering for building automation systems. This course builds upon our DES100: BAS Advanced Design Course by providing in-depth instruction on the hardware engineering of control solutions. Students will learn how to engineer control systems for a variety of HVAC applications through the use of exercises, video lessons, flowcharts, and checklists.

Course Objectives:

- Demonstrate how to engineer control systems for VAV, Fan Coil, RTU, AHU, and Hydronic Systems
- Utilize our controls engineering methodology to manage and execute the engineering process
- Display knowledge of the engineering process and steps through multi-step exercises

Some Key Topics:

- Selecting the correct input and output types for your project
- Engineering control systems while considering scope, cost, and site conditions
- Engineering distributed control systems using I/O modules
- Properly selecting valves, dampers, and actuators based on project needs
- Correctly engineering installation details and panel layouts
- Choosing the appropriate architecture based on the customer's business need
- Engineering controls designs utilizing embedded or factory packaged control solutions

**MSI100: MSI in a Box**

**\$ 2,357.68**

**Min/Max Number of Participants: 1**

**Course Length: 12h 30m**

**Course Description:** MSI in a Box: These days, everyone wants to call themselves a master system integrator but how many people have actually integrated multiple systems? In this course you will learn our proven methodology to integrate systems together. This course will include hands-on labs where you will integrate systems using physical interfaces, protocols, and APIs.

Course Objectives:

- Master the complete systems integration process from start to finish
- Gain hands-on experience working with physical, protocol, and programmatic integrations
- Develop the skills to be a top-tier system integrator
- Learn from one of the foremost experts on system integration

Some Key Topics:

- Learn the complete systems integration process from start to finish
- Develop integrated use cases from scratch
- Create integrated specifications and scope of work documents
- Manage multiple systems and contractors using our Integration Matrix Framework
- Master the integration process using our Integrated Project Framework
- Ensure that your integrated systems and projects keep working on day 2 with our Lifecycle Management Framework

**OPS100: BAS Operations Management**

**\$ 943.07**

**Min/Max Number of Participants: 1**

**Course Length: 6h 7m**

**Course Description:** BAS Operations Management has been engineered with building operators, engineers, and facilities teams in mind. This course is designed to transform you into a BAS superstar, capable of not only reducing operational costs but also increasing self-sufficiency and building efficiency.

Course Objectives:

- Learn how to reduce operational costs
- Learn how to increase self-sufficiency
- Prevent issues to decrease downtime
- Implement strategies for improved building efficiency
- Learn enhanced troubleshooting skills
- Provide superior service management

Some Key Topics:

- Learn how to make the most of your BAS, understand trends, alarms, and reports, and navigate through different types of graphics.
- Learn how to create a maintenance schedule, clean up unused files, verify device communication, and perform physical checkouts.
- Get insights into service management best practices and understand how to set up an efficient triage process.
- Gain a solid understanding of energy management, metering, and building load calculations, all aimed at optimizing your building's energy usage.

**PM100: BAS Project Management Bootcamp**

**\$ 2,357.68**

**Min/Max Number of Participants: 1**

**Course Length:** 7h 44m

**Course Description:** BAS Project Management Bootcamp requires strong financial, technical, and managerial skills. This course takes students through the complete BAS project process and provides hands-on exercises for performing these tasks. Students will use real-world project documents to produce deliverables for their project.

Course Objectives:

- Understand the BAS Project Management process and the tools used to manage a project from start to finish
- Demonstrate knowledge of project finances and how to effectively balance project finances, scope, and timeline
- Demonstrate the ability to manage labor, material, and subcontractors within the scope of a project

Some Key Topics:

- The BAS Project Management process and how to apply the process to new construction and retrofit projects
- How to create and manage project kickoff meetings to get the project off to a good start
- How to assess project documents to ensure that the project team has a clear understanding of project scope, risks, and timeline
- How to submit and manage RFIs and RFCs for a project
- The basics of finances and how to manage costs to deliver maximum profitability without compromising project quality
- How to forecast costs and how to maximize cashflow by managing AP and AR
- How to identify, create, and submit change orders
- How to manage the creation and completion of project closeout documents

**PROG100: BAS Programming Fundamentals**

**\$ 2,357.68**

**Min/Max Number of Participants: 1**

**Course Length:** 8h 54m

**Course Description:** BAS Programming Fundamentals is for BAS technicians, operators, designers, programmers, and service personnel who want to learn how to program BAS control sequences and troubleshoot existing BAS programs. It teaches students to program from scratch. They will learn how to use design patterns to rapidly develop programs. Students will also learn how to use design patterns to "reverse engineer" existing programs.

Course Objectives:

- Demonstrate how to program a building automation system
- Utilize design patterns and systems thinking to implement sequences
- Develop 3 full programs from scratch utilizing the programming process

Some Key Topics:

- What programming is, how it works, and how programs are structured
- The purpose of points, different point types, and how points are used in programs
- The different logic blocks, what each logic block is used for, how to use each logic block, and when to use each logic block
- What design patterns are and how to apply design patterns to your BAS programs
- How to control valves, fans, pumps, dampers, and more with these fundamental design patterns
- Advanced design patterns like volumetric offset, lead-lag control, CO2 reset, and building static pressure control
- Three real-world programming challenges that test student learning and application
- Three common test processes that you will use to test your programs and to troubleshoot existing programs

**SLS100: BAS Scoping & Estimating**

**\$ 2,357.68**

**Min/Max Number of Participants: 1**

**Course Length: 7h 16m**

**Course Description:** BAS Scoping and Estimating Mastery Bootcamp will teach building automation estimators and sales professionals how to create building automation scopes and estimates. The course will also teach estimating and scoping strategy to help building automation professionals win projects.

**Course Objectives:**

- Review and perform takeoffs utilizing project documents
- Utilize hands on exercises to create project scopes and estimates
- Identify project risks and demonstrate the ability to implement pricing strategies to provide a competitive estimate

**Some Key Topics:**

- Understand what BAS components are and when to use each one
- Familiarize yourself with electrical concepts to effectively price subcontracted labor
- Discuss the construction process and understand the different phases of a construction documentation
- Perform takeoffs and scope evaluations using real-world project documents and scoping checklists
- Learn the key areas to review in specifications and how to determine any potential specification issues
- Discover when (and when not) to utilize the RFI and RFC processes as a sales strategy
- Utilize our Scope Matrix template to perform scope takeoffs and to improve scope clarity
- Learn how to utilize margin and markup as sales tools to beat your competition
- Utilize our checklists and cheat sheets to perform a full-scale scoping and estimating project using real project documents