



U.S. Department
of Transportation
**Federal Aviation
Administration**

Airports District Office
100 West Cross Street, Suite B
Jackson, Mississippi 39208-2307

March 19, 2026

Samuel Washington
Director of Capital Programming
Jackson Municipal Airport Authority
swashington@jmaa.com

Joyce Tillman
Senior Capital and Grants Administrator
Jackson Municipal Airport Authority
jtillman@jmaa.com

Community Project Funds: HVAC

Dear Mr. Washington and Ms. Tillman:

In reference to your email request. The project that covers the public area is eligible, the proration is 53%. The area that is not open to the public is not eligible. This proration is about 47%.

If you have questions, please call me at 769-268-6978 or email me at Christopher.t.stewart@faa.gov.

Sincerely,

Christopher T. Stewart Jr.

Christopher T. Stewart Jr.
Program Manager
Airports District Office



Jackson City Council Member

Kevin Parkinson, Ward Seven

219 South President Street

Jackson, MS 39205

March 2, 2026

Congressman Michael Guest
United States House of Representatives
Washington D.C. Office
450 Cannon HOB
Washington, DC 20515

Dear Congressman Guest,

I am writing to express strong support for the Jackson Municipal Airport Authority's (JMAA) request for grant funding for the Heating, Ventilation, and Air Conditioning (HVAC) Phase II Replacement Project at Jackson-Medgar Wiley Evers International Airport (JAN). This project will replace fourteen (14) aging air handling units (AHUs) and five (5) boilers that serve the Airport's Terminal Building. The scope of work includes installing new high-efficiency AHUs, replacing associated control valves and piping, removing and replacing five obsolete boilers, and a phased construction sequence designed to minimize disruption within the active passenger terminal.

The existing commercial air handling units currently serving the JAN Terminal are beyond their 20-year useful life and are increasingly prone to mechanical failure. Many system components have become obsolete, resulting in extended repair timelines and increased maintenance costs. As these units continue to degrade, the risk of system outages during peak seasonal temperatures poses a direct threat to passenger comfort, tenant operations, and the Airport's ability to provide a safe and functional environment for the traveling public. In a region that regularly experiences extreme summer heat, reliable climate control within the passenger terminal is essential to maintaining uninterrupted airport operations and protecting public health and safety.

JAN serves approximately 1.3 million passengers annually and functions as a vital transportation hub for business travel, tourism, government operations, and regional economic activity throughout Central Mississippi. The proposed HVAC modernization project will enhance system reliability, improve energy efficiency, and reduce long-term operational costs associated with maintaining outdated mechanical infrastructure. By investing in modern, energy-efficient equipment, this project will help reduce lifecycle maintenance expenses and prevent costly emergency system failures that would otherwise place additional financial burden on local resources.

The City of Jackson's leadership fully supports JMAA's FY 2027 Community Project Funding request for this critical infrastructure improvement. This investment will strengthen the Airport's ability to provide reliable air service, support continued economic development in the region, and ensure that JAN remains a safe, efficient, and resilient public-use transportation facility. We respectfully encourage favorable consideration of this request.

Sincerely,

Kevin Parkinson
City Councilperson



May 5, 2025

Congressman Michael Guest
United States House of Representatives
Washington D.C. Office
450 Cannon HOB
Washington, DC 20515

Dear Congressman Guest,

I am writing to express strong support for the Jackson Municipal Airport Authority's (JMAA) request for grant funding for the Heating, Ventilation, and Air Conditioning (HVAC) Phase II Replacement Project at Jackson-Medgar Wiley Evers International Airport (JAN). This project will replace fourteen (14) aging air handling units (AHUs) and five (5) boilers that serve the Airport's Terminal Building. The scope of work includes installing new high-efficiency AHUs, replacing associated control valves and piping, removing and replacing five obsolete boilers, and a phased construction sequence designed to minimize disruption within the active passenger terminal.

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economic development in the region, and ensure that JAN remains a safe, efficient, and resilient public-use transportation facility. We respectfully encourage favorable consideration of this request.

Sincerely,



Jeff Rent
President and CEO
Greater Jackson Chamber Partnership
jrent@greaterjacksonms.com



Jackson City Council, Vice President
Vernon Hartley, Ward 5 Councilman

219 South President Street
P.O. Box 17, Jackson, MS 39205-0017

March 2, 2026
Congressman Michael Guest
United States House of Representatives
Washington D.C. Office
450 Cannon HOB
Washington, DC 20515

Dear Congressman Guest,

I am writing to express strong support for the Jackson Municipal Airport Authority's (JMAA) request for grant funding for the Heating, Ventilation, and Air Conditioning (HVAC) Phase II Replacement Project at Jackson-Medgar Wiley Evers International Airport (JAN). This project will replace fourteen (14) aging air handling units (AHUs) and five (5) boilers that serve the Airport's Terminal Building. The scope of work includes installing new high-efficiency AHUs, replacing associated control valves and piping, removing and replacing five obsolete boilers, and a phased construction sequence designed to minimize disruption within the active passenger terminal.

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JAN serves approximately 1.3 million passengers annually and functions as a vital transportation hub for business travel, tourism, government operations, and regional economic activity throughout Central Mississippi. The proposed HVAC modernization project will enhance system reliability, improve energy efficiency, and reduce long-term operational costs associated with maintaining outdated mechanical infrastructure. By investing in modern, energy-efficient equipment, this project will help reduce lifecycle maintenance expenses and prevent costly emergency system failures that would otherwise place additional financial burden on local resources.

The City of Jackson's leadership fully supports JMAA's FY 2027 Community Project Funding request for this critical infrastructure improvement. This investment will strengthen the Airport's ability to provide reliable air service, support continued economic development in the region,



and ensure that JAN remains a safe, efficient, and resilient public-use transportation facility. We respectfully encourage favorable consideration of this request. If you have questions or need additional information, please contact me at vhartley@city.jackson.ms.us at (601) 960-1092.

Sincerely,

A handwritten signature in black ink that reads "Vernon W. Hartley". The signature is written in a cursive style.

Vernon W. Hartley, Sr.
City Council Vice President
Ward 5 Councilman, Jackson, Mississippi
Office: 601.960.1092



March 4, 2026

Congressman Michael Guest
United States House of Representatives
Washington D.C. Office
450 Cannon HOB
Washington, D.C. 20515

RE: JMAA Community Project Funding Request for HVAC Phase II Replacement Project

Dear Congressman Guest:

Thank you for your strong leadership in Congress and for your continued service to the State of Mississippi and our nation. I am writing to express my strong support for the Jackson Municipal Airport Authority's (JMAA) request for FY 2027 Community Project Funding for the HVAC Phase II Replacement Project at Jackson-Medgar Wiley Evers International Airport (JAN).

This critical infrastructure project will replace fourteen (14) aging air handling units (AHUs) and five (5) boilers that serve the Airport's Terminal Building. The scope of work includes installation of new high-efficiency AHUs, replacement of associated control valves and piping, removal and replacement of five obsolete boilers, and implementation of a carefully phased construction schedule designed to minimize disruption within the active passenger terminal.

The existing commercial air handling systems at JAN have exceeded their 20-year useful life and are increasingly prone to mechanical failure. Many components are obsolete, resulting in extended repair timelines, higher maintenance costs, and reduced system reliability. As these units continue to deteriorate, the risk of outages particularly during peak summer temperatures poses a direct threat to passenger comfort, tenant operations, and the Airport's ability to provide a safe and functional environment for the traveling public. In a region that routinely experiences extreme heat and humidity, dependable climate control is essential to maintaining uninterrupted airport operations and protecting public health and safety.

JAN serves approximately 1.3 million passengers annually and functions as a vital transportation hub for business travel, tourism, government operations, and regional economic activity throughout Central Mississippi. JAN Airport is also vital to the economic development success of Rankin County and our entire region. The proposed HVAC modernization will significantly improve system reliability, enhance energy efficiency, and reduce long-term operational costs associated with maintaining outdated mechanical infrastructure. By investing in modern, energy-efficient equipment, this project will lower lifecycle maintenance expenses and help prevent costly emergency failures that could otherwise strain local financial resources.

Rankin First's leadership supports JMAA's request for federal funding for this essential improvement. This investment will strengthen the Airport's capacity to provide reliable air service, sustain economic



growth in the region, and ensure that JAN remains a safe, efficient, and resilient public-use transportation facility.

Thank you for considering the Jackson Municipal Airport Authority's application for funding for this important project. Rankin First offers its full and strong support for this request. If you have any questions or would like additional information, please do not hesitate to contact me at 601-825-5335 or via email at GWright@RankinFirst.com

Sincerely,

A handwritten signature in black ink that reads "Garrett Wright". The signature is fluid and cursive, with the first and last names being the most prominent.

Garrett Wright
Executive Director
Rankin First

**Budget Narrative for
Heating, Ventilation, and Air Conditioning Phase 2
at Jackson-Medgar Wiley Evers International Airport**

The total project cost for the HVAC Phase II project is \$10,686,759, based on completed engineering design and detailed construction cost estimates. JMAA has identified multiple funding sources to support this project. Passenger Facility Charge (PFC) revenues totaling \$401,301 have been committed to support engineering and construction costs. JMAA has also requested \$262,078 in Mississippi state legislative funding to support the project. In addition, JMAA has submitted a request through the Infrastructure Investment and Jobs Act (IIJA) Airport Terminal Program (ATP) as part of a broader terminal modernization initiative, including \$4,979,491.36 for the HVAC Phase II project. The ATP award decision is currently pending. To complete the project funding package, JMAA is requesting \$4,717,412.86 in FY 2027 Community Project Funding (CPF) through the Federal Aviation Administration's Airport Improvement Program (AIP) account. Receiving funding through the CPF as a shovel-ready project will allow JMAA to allocate IIJA funds for broader terminal modernization efforts, including critical planning phases, as advised during the Office of Congressman Michael Guest's information session held on Thursday, February 26, 2026, in Brandon, Mississippi.

Source of Funds Summary

Engineering Services (Construction Administration):

PFC Funding:	\$266,143.00
--------------	--------------

Construction Services:

Community Project Funding Request:	\$4,717,412.86
------------------------------------	----------------

***IIJA Airport Terminal Program Request	(\$4,979,491.36)
------------------------------------------	------------------

Passenger Facility Charge Funding:	\$135,158.00
------------------------------------	--------------

Mississippi State Legislative Request:	\$262,078.00
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Total Project Cost:	\$10,686,759.00
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***The IIJA ATP request for this project is a part of a \$25M grant application to support several terminal modernization initiatives. If we receive the IIJA ATP funding, it could be used for projects, including the planning phases and other critical shovel-ready projects. The CPF funding will be used for this specific **shovel-ready** HVAC Phase 2 project, building on the investment made in Phase I through CPF.

Opinion of Probable Cost - IFB Construction Cost Estimate Rev 4

Design Report Project # 60729850: Addendum
1: Alternates 1-5

Jackson - Medgar Wiley Evers International Airport

Jackson, Mississippi

May 6, 2025

AECOM

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Document Issue Sheet

Issue Nr.	Document	File Path	Issue Date	Parties Sent To	Prepared By	Checked By	Reviewed By
A	100% IFB Estimate	C:\60729850 \IFB Design\ IFB Construction Cost Estimate	5/21/2024	AECOM	BR	MS	EL
B	100% IFB Estimate	C:\60729850 \IFB Design\ IFB Construction Cost Estimate \ Revised with Alternates	5/31/2024	AECOM	BR	MS	EL
C	100% IFB Estimate/Add. 1	C:\60729850 \IFB Design\ IFB Construction Cost Estimate \ Addendum 1 (Alt 1-3)	7/15/2024	AECOM	BR	MS	EL
D	100% IFB Estimate/Add. 1/Rev 3.1	C:\60729850 \IFB Design\ IFB Construction Cost Estimate \ Addendum 1 (Alt 1-4)	4/8/2025	AECOM	BR	MS	EL
E	100% IFB Estimate/Add. 1/Rev 3.1	C:\60729850 \IFB Design\ IFB Construction Cost Estimate \ Addendum 1 (Alt 1-4)	4/10/2025	AECOM	BR	MS	EL
F	100% IFB Estimate	C:\60729850 \IFB Design\ IFB Construction Cost Estimate	5/6/2025	AECOM	BR	MS	EL

1.0 One Page Summary for JMAA HVAC Package, Alt# 1-5, Addednum 1, 04.10.2025

The Overall Position

The following cost estimate represents a robust assessment of the current costs at this Issue for Bid Stage. Certain allowances have been made for elements of the design that require further design review and development, and opportunities may exist to reduce such provisions. The summary below represents the key program areas as well as the likely on-costs of construction.

Type of Contract

Project will be constructed under a single prime contract.

Construction Schedule

Construct the Work in phases as indicated below

Escalator and Elevator Work to be under construction concurrently

Lead Time for Conveying Equipment (Procured all at the Same time)

Lead Time for Chillers (24 -30 weeks) 24 Wks

Lead Time for Boilers (19 -20 weeks) 20 Wks

Lead Time for Exchangers / AHU's (16-20 weeks) 20 Wks

Owners contingency allowed for within construction is 0.00%

Contractors contingency allowed for within construction is 5.00%

Remodel Tax (assume N/A or Exempt) 0.00%

Escalation: Escalated to Mid Point of Construction 5.00%

Escalation Forecast

1 JMAA Updates

Escalated to End of Lead Times, max 30 weeks (taken to end of Jan 25)

Year	Esc p.a	Months	Weighted Esc.	
Year 1 - 2024 : From June	24	5.00%	7	2.9%
Year 2 - 2025: May 2025	25	5.00%	5	2.1%
Weighted Escalation			5.0%	

2 JMAA HVAC Upgrades

Labor / Installation for Mech Equipment included in Rates through Jan 2026

A detailed elemental summary of the above is provided in the following sections, Section 1.0 Cost Summary.

The works are also apportioned into a package build-up - included is a trade summary (in CSI Master format)

in the following Sections.

ALTERNATES (WORK IN PROGRESS)		Areas	\$/LS	\$ Amount
Tab	Alternate 1 (Add) - [Ref Tab 1.1-1.3]			
Alt 4.1	1.1 ALT 1 (AHU-17, 18, 19, 20, 21, 22, 23 & 24)	1 LS	\$ 3,504,600.90	\$ 3,504,601
Alt 4.2	1.2 - ALT 2: (AHU-9 & 10)	1 LS	\$ 824,112.83	\$ 824,113
Alt 4.3	1.3 - ALT 3: (AHU-11, 12, & 14)	1 LS	\$ 1,900,202.19	\$ 1,900,202
Alt 4.4	1.4 - ALT 4: (AHU-27)	1 LS	\$ 709,743.73	\$ 709,744
Alt 4.5	1.5 - ALT 5: (HWB-1 to 5 & FEF-1)	1 LS	\$ 3,481,956.45	\$ 3,481,956
TOTAL FOR ALTERNATES			1 \$ 10,420,616.10	\$ 10,420,616

2.0 TRADE SUMMARY

1.1 - ALT 1: 1.2 - ALT 2: 1.3 - ALT 3: 1.4 - ALT 4: 1.5- Alt 5:

%

The table below represents a summary of the costs, on a trade package basis, including base construction cost representing the scheme specifics, including contingencies & escalations have also been incorporated

CSI code	Description		1.1 - ALT 1:	1.2 - ALT 2:	1.3 - ALT 3:	1.4 - ALT 4:	1.5- Alt 5:
00 00 01	General Requirements	0.0%	-	-	-	-	-
00 00 02	Existing Conditions	0.1%	-	-	-	-	-
00 00 03	Concrete	0.1%	-	-	-	-	-
00 00 05	Metals	0.0%	-	-	-	-	-
00 00 06	Wood, Plastics, and Composites	0.0%	-	-	-	-	-
00 00 07	Thermal and Moisture Protection	0.0%	-	-	-	-	-
00 00 10	Specialties	0.0%	-	-	-	-	-
00 00 14	Conveying Equipment	0.0%	-	-	-	-	-
00 00 21	Fire Suppression	0.0%	-	-	-	-	-
00 00 22	Plumbing	0.0%	-	-	-	-	-
00 00 23	Heating Ventilating and Air Conditioning	66.6%	2,276,491	550,014	1,267,032	475,851	2,084,913
00 00 25	Integrated Automation	0.0%	-	-	-	-	-
00 00 26	Electrical	3.5%	-	-	-	-	251,800
00 00 27	Communications	0.0%	-	-	-	-	-
00 00 28	Electronic Safety and Security	0.0%	-	-	-	-	-
00 00 32	Exterior Improvements	0.4%	-	-	-	-	-
00 00 33	Utilities	0.1%	88,000	6,000	15,000	3,000	12,500
SUB-TOTAL ELEMENTAL COST BEFORE ALLOWANCES		71%	2,364,491	556,014	1,282,032	478,851	2,349,213
Contractor Allowances							
Z50	Contractor allowances	41.2%	973,224	228,855	527,684	197,095	966,936
Z12	Sales Tax - Tax Exempt.	0.00%	-	-	-	-	-
Z15	Phasing	1.50%	35,467	8,340	19,230	7,183	35,238
Z28	General Requirements	9.00%	212,804	50,041	115,383	43,097	211,429
Z30	CM Staff, Gen Conditions	11.00%	260,094	61,162	141,024	52,674	258,413
Z32	Builders Risk / G&L / CDI	4.66%	110,185	25,910	59,743	22,314	109,473
Z34	Construction Management fee	10.00%	236,449	55,601	128,203	47,885	234,921
Z36	Construction Contingency	5.00%	118,225	27,801	64,102	23,943	117,461
Z25	A/E Design Contingency (Reduced to 0%)	0.00%	-	-	-	-	-
CONTRACTOR ALLOWANCES		29%	973,224	228,855	527,684	197,095	966,936
TOTAL ELEMENTAL COST FOR CONSTRUCTION		100%	3,337,715	784,869	1,809,716	675,946	3,316,149
Z30	Client Soft Cost Allowances (NIC)		-	-	-	-	-
TOTAL PROJECT COST (excl. escalation)			3,337,715	784,869	1,809,716	675,946	3,316,149
Z20	Escalation (refer Tab 1 Summary)	5%	166,886	39,243	90,486	33,797	165,807
TOTAL PROJECT COST (incl. Escalation)			3,504,601	824,113	1,900,202	709,744	3,481,956

REFERENCE 3.0 DESCRIPTION	1.1 ALT 1			1.2 ALT 2			1.3 ALT 3			1.4 ALT 4			1.5 ALT 5		
	%	\$/SF	TOTAL	%	\$/SF	TOTAL	%	\$/SF	TOTAL	%	\$/SF	TOTAL	%	\$/SF	TOTAL
The table below represents a summary of the costs, on an elemental basis, including base construction costs representing the scheme specifics, as well as the cost of utilities, appurtenances, site improvements and recommended allowances for soft costs including contingencies. The impact of the schedule considerations and escalations have been incorporated															
Base Construction (4.1 - 4.5)	Gross Area: 1 LS			Gross Area: 1 LS			Gross Area: 1 LS			Gross Area: 1 LS			Gross Area: 1 LS		
A10 Foundations and substructure	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
A20 Basement Construction	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
A SUBSTRUCTURE	0%	-	-	0%	-	-	0%	-	-	0%	-	-	0%	-	-
B10 Superstructure	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
B20 Exterior Enclosure	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
B30 Roofing	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
B SHELL	0%	-	-	0%	-	-	0%	-	-	0%	-	-	0%	-	-
C10 Interior Construction	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
C20 Stairs	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
C30 Interior Finishes	0.0%	0.0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
C INTERIORS	0%	-	-	0%	-	-	0%	-	-	0%	-	-	0%	-	-
D10 Conveying	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
D20 Plumbing	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
D30 HVAC	68.2%	2,276,491	2,276,491	70.1%	550,014.00	550,014	161.4%	1,267,032.00	1,267,032	60.6%	475,851.24	475,851	265.6%	2,084,912.95	2,084,913
D40 Fire protection	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
D50 Electrical	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	32.1%	251,800.00	251,800
D60 ICT	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
D SERVICES	68%	2,276,491	2,276,491	70%	550,014	550,014	161%	1,267,032	1,267,032	61%	475,851	475,851	298%	2,336,713	2,336,713
E10 Equipment (Signage)	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
E20 Furnishings	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
E EQUIPMENT & FURNISHINGS	0%	-	-	0%	-	-	0%	-	-	0%	-	-	0%	-	-
F10 Special Construction	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
F20 Selective Building Demolition	0.0%	0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
F SPECIAL CONSTRUCTION & DEMOLITION	0%	-	-	0%	-	-	0%	-	-	0%	-	-	0%	-	-
G10 Site Preparation	0.0%	0.0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
G20 Site Improvements	0.0%	0.0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
G30 Site Mechanical Utilities	1.3%	44,000.0	44,000	0.4%	3,000.00	3,000	1.0%	7,500.00	7,500	0.2%	1,500.00	1,500	0.0%	0.00	-
G40 Site Electrical Utilities	1.3%	44,000.0	44,000	0.4%	3,000.00	3,000	1.0%	7,500.00	7,500	0.2%	1,500.00	1,500	1.6%	12,500.00	12,500
G90 Other Site Construction	0.0%	0.0	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-	0.0%	0.00	-
G SITEWORK AND UTILITIES	3%	88,000	88,000	1%	6,000	6,000	2%	15,000	15,000	0%	3,000	3,000	2%	12,500	12,500
SUB-TOTAL ELEMENTAL COST EXCL ALLOWANCES	71%	2,364,491	2,364,491	71%	556,014	556,014	163%	1,282,032	1,282,032	61%	478,851	478,851	299%	2,349,213	2,349,213

REFERENCE 3.0 DESCRIPTION	1.1 ALT 1			1.2 ALT 2			1.3 ALT 3			1.4 ALT 4			1.5 ALT 5		
	%	\$/SF	TOTAL	%	\$/SF	TOTAL	%	\$/SF	TOTAL	%	\$/SF	TOTAL	%	\$/SF	TOTAL
The table below represents a summary of the costs, on an elemental basis, including base construction costs representing the scheme specifics, as well as the cost of utilities, appurtenances, site improvements and recommended allowances for soft costs including contingencies. The impact of the schedule considerations and escalations have been incorporated															
Base Construction (4.1 - 4.5)	Gross Area: 1 LS			Gross Area: 1 LS			Gross Area: 1 LS			Gross Area: 1 LS			Gross Area: 1 LS		
Contractor Allowances															
Z50 Contractor allowances	41.2%	973,224	973,224	41.2%	228,855.36	228,855	41.2%	527,684.37	527,684	41.2%	197,095.17	197,095	41.2%	966,936.05	966,936
Z10 B&O Tax - N/A	0.0%	0	0	0.5%	0	0	0.5%	0	0	0.5%	0	0	0.5%	0	0
Z12 Sales Tax - Exempt.	0.0%	0	0	0.0%	0	0	0.0%	0.0	0	0.0%	0.0	0	0.0%	0.0	0
Z15 Phasing	1.5%	35,467	35,467	1.5%	8,340	8,340	1.5%	19,230	19,230	1.5%	7,183	7,183	1.5%	35,238	35,238
Z28 General Requirements	9.00%	212,804	212,804	9.00%	50,041	50,041	9.00%	115,383	115,383	9.00%	43,097	43,097	9.00%	211,429	211,429
Z30 CM Staff, Gen Conditions	11.00%	260,094	260,094	11.00%	61,162	61,162	11.00%	141,024	141,024	11.00%	52,674	52,674	11.00%	258,413	258,413
Z32 Builders Risk / G&L / CDI	4.66%	110,185	110,185	4.66%	25,910	25,910	4.66%	59,743	59,743	4.66%	22,314	22,314	4.66%	109,473	109,473
Z34 Construction Management fee	10.00%	236,449	236,449	10.00%	55,601	55,601	10.00%	128,203	128,203	10.00%	47,885	47,885	10.00%	234,921	234,921
Z36 Construction Contingency	5.00%	118,225	118,225	5.00%	27,801	27,801	5.00%	64,102	64,102	5.00%	23,943	23,943	5.00%	117,461	117,461
Z25 A/E Design Contingency (Reduced to 0%)	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0
CONTRACTOR ALLOWANCES	29%	973,224	973,224	29%	228,855	228,855	29%	527,684	527,684	11%	197,095	197,095	53%	966,936	966,936
TOTAL ELEMENTAL COST FOR CONSTRUCTION	100%	3,337,715	3,337,715	100%	784,869	784,869	100%	1,809,716	1,809,716	231%	675,946	675,946	86%	3,316,149	3,316,149
Z30 Client Soft Cost Allowances (NIC)	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0	0.0%	0	0
TOTAL PROJECT COST (excl. escalation)		3,337,715	3,337,715		784,869	784,869		1,809,716	1,809,716		675,946	675,946		3,316,149	3,316,149
Z20 Escalation (refer summary)	5.0%	166,886	166,886	5.0%	39,243	39,243	5.0%	90,486	90,486	5.0%	33,797	33,797	5.0%	165,807	165,807
TOTAL PROJECT COST (incl. Escalation)		3,504,601	3,504,601		824,113	824,113		1,900,202	1,900,202		709,744	709,744		3,481,956	3,481,956

4.1 AIR HANDLING UNIT (BID ALTERNATE #1) BUILD UP

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
D	SERVICES					
D10	Conveying				-	
D20	Plumbing				-	
D30	HVAC	1	LS		2,276,491	

DEMOLITION

The Following in Demolition 111,050

THE FOLLOWING IN HVAC SCHEDULES (SHEET M207D)

00 00 23	Remove AHU-20 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 1	1	LS	9,500	9,500	Allowance
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THE FOLLOWING IN HVAC SCHEDULES (SHEET M207D)

00 00 23	Remove AHU-21 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 2	1	LS	9,500	9,500	Allowance
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00 00 23	Existing support structure to remain - Ref 4	1	LS	9,500	9,500	Allowance
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00 00 23	Remove AHU-17 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 5	1	LS	9,500	9,500	Allowance
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00 00 23	Remove AHU-17 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 4	1	LS	9,500	9,500	Allowance
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00 00 23	Remove AHU-17 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 7	1	LS	9,500	9,500	Allowance
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00 00 23	Demo 3" / 4" CHWS Piping	120	LF	75	9,000	Allowance
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00 00 23	Demo 1-2" CHWS Piping	60	LF	55	3,300	Allowance
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4.1 AIR HANDLING UNIT (BID ALTERNATE #1) BUILD UP

THE FOLLOWING IN HVAC SCHEDULES (SHEET M207D)

00 00 23	Remove AHU-24 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 1	1	LS	9,500	9,500	Allowance
00 00 23	Remove AHU-19 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 3	1	LS	9,500	9,500	Allowance
00 00 23	Remove AHU-22 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 2	1	LS	9,500	9,500	Allowance
00 00 23	Demo 1-2" CHWS Piping	200	LF	55	11,000	Allowance
00 00 23	Demo 2" CHWS Piping	30	LF	75	2,250	Allowance

NEW WORK

EQUIPMENT AND ASSOCIATED APPURTENANCES

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THE FOLLOWING IN HVAC SCHEDULES (SHEET M702)

	The Following in Air Handling Unit Schedule (Bid Alternate 1)	1	LS			981,269
00 00 23	Air Handling Unit, West Term Roof, Manuf = York, Total CFM 2925, 109 MBH, 2297 LBS [AHU-17]	2,925	CFM	32.1	93,818	
00 00 23	Air Handling Unit, West Term Roof, Manuf = York, Total CFM 4000, 166 MBH, 2751 LBS [AHU-18]	4,000	CFM	28.3	113,209	
00 00 23	Air Handling Unit, West Term Roof, Manuf = York, Total CFM 3600, 153 MBH, 2701 LBS [AHU-19]	3,600	CFM	29.6	106,511	
00 00 23	Air Handling Unit, West Term Roof, Manuf = York, Total CFM 6000, 231 MBH, 3431 LBS [AHU-20]	6,000	CFM	27.8	166,926	

4.1 AIR HANDLING UNIT (BID ALTERNATE #1) BUILD UP

00 00 23	Air Handling Unit, West Term Roof, Manuf = York, Total CFM 4000, 166 MBH, 2751 LBS [AHU-21]	4,000	CFM	28.3	113,209
00 00 23	Air Handling Unit, West Term Roof, Manuf = York, Total CFM 3600, 153 MBH, 2701 LBS [AHU-22]	3,600	CFM	29.6	106,511
00 00 23	Air Handling Unit, West Term Roof, Manuf = York, Total CFM 6400, 247 MBH, 3541 LBS [AHU-23]	6,400	CFM	27.3	174,574
00 00 23	Air Handling Unit, West Term Roof, Manuf = York, Total CFM 3600, 153 MBH, 2701 LBS [AHU-24]	3,600	CFM	29.6	106,511

HYDRONIC PIPING

THE FOLLOWING IN ENLARGED COPE (SHEET M207)

	2" Piping	524	LF		81,220
00 00 23	Piping 2" CHR TO AHU 20, 21, 18, 23, 24, 19, 22	262	LF	155.0	40,610
00 00 23	Piping 2" CHS TO AHU 20, 21, 18, 23, 24, 19, 22	262	LF	155.0	40,610
	The Following in Insulation to Piping	1	LS		41,920
00 00 23	Insulation to Pipe, foam glass jacket < 2"	524	LF	80.0	41,920
	The Following in Heat Tape to Piping	1	LS		7,860
00 00 23	Insulation to Pipe, foam glass jacket < 2"	524	LF	15.0	7,860
	The Following in Hangers @ 8ft o.c.	1	LS		27,772
00 00 23	Hangers to Pipe, foam glass jacket < 2"	66	EA	424.0	27,772
	The Following in Valves	1	LS		88,000
00 00 23	Valves 2" in CWS	16	EA	5,500.0	88,000

4.1 AIR HANDLING UNIT (BID ALTERNATE #1) BUILD UP

HVAC AIR DISTRIBUTION

THE FOLLOWING IN ENLARGED COPE (SHEET M207)

The Following in Ductwork Connections **1 LS 68,000**

00 00 23	Provide new transition connecting existing to new AHU	8	LS	8,500	68,000	
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The Following in HVAC Controls Instrumentation **1 LS 302,400**

00 00 23	AHU Alt-1 Control Points	168	EA	1,800.0	302,400	Allowance
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The Following in High Lift Equipment and Material Handling **1 LS 480,000**

00 00 23	High Lift Equipment	8	LS	30,000.0	240,000	Allowance
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00 00 23	Material Handling	8	LS	30,000.0	240,000	Allowance
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General Conditions **1 LS 87,000**

00 00 23	Allowance for testing and flushing	1	LS	15,000	15,000	
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00 00 23	Allowance for commissioning	120	HR	350	42,000	
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00 00 23	Allowance for associated builder's work	2	LS	15,000	30,000	
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F SPECIAL CONSTRUCTION & DEMOLITION

F10	Special Construction (ADA Requirements)	-
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F20	Selective Building Demolition	-
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G SITEWORK AND UTILITIES

G10	Site Preparation	-
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G20	Site Improvements	-
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4 .1 AIR HANDLING UNIT (BID ALTERNATE #1) BUILD UP

G30	Site Mechanical Utilities	1	SF	44,000.0	44,000
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00 00 33	Site Mechanical utilities / connections / reinforcement / diversions: Utility Hook Ups	8	LS	5,500	44,000
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G40	Site Electrical Utilities	1	SF	44,000.0	44,000
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00 00 33	Site Electrical utilities / connections / reinforcements / diversions / Allowance for Utility Hook ups / Moving Piping	8	LS	5,500	44,000
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TOTAL Construction Cost (direct)		1	LS	2,364,491	2,364,491
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4 .2 AIR HANDLING UNIT (BID ALTERNATE #2) BUILD UP

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
D	SERVICES					
D10	Conveying				-	
D20	Plumbing				-	
D30	HVAC				550,014	

DEMOLITION

The Following in Demolition 1 LS **19,000**

THE FOLLOWING IN HVAC SCHEDULES (SHEET M204D)

00 00 23	Remove AHU-10 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 2	1	LS	9,500	9,500	<i>Allowance</i>
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THE FOLLOWING IN HVAC SCHEDULES (SHEET M205D)

00 00 23	Remove AHU-9 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 1	1	LS	9,500	9,500	<i>Allowance</i>
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NEW WORK

EQUIPMENT AND ASSOCIATED APPURTENANCES

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THE FOLLOWING IN HVAC SCHEDULES (SHEET M702)

The Following in Air Handling Unit Schedule (Bid Alternate 2) 1 LS **278,330**

00 00 23	Air Handling Unit, East Term LVL1, Manuf = York, Total CFM 8150, 373 MBH, 4134 LBS [AHU-9]	8,150	CFM	18.1	147,310	
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00 00 23	Air Handling Unit, East Term LVL1, Manuf = York, Total CFM 6710, 285 MBH, 32674 LBS [AHU-10]	6,710	CFM	19.5	131,020	
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4.2 AIR HANDLING UNIT (BID ALTERNATE #2) BUILD UP

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
HYDRONIC PIPING						
<u>THE FOLLOWING IN ENLARGED CHILLER ROOM SCOPE (SHEET M204, M205)</u>						
	3" Piping	24	LF			4,200
00 00 23	Piping 3" CHR TO AHU 10, 9	12	LF	175.0	2,100	
00 00 23	Piping 3" CHS TO AHU 10, 9	12	LF	175.0	2,100	
	The Following in Insulation to Piping	1	LS			2,784
00 00 23	Insulation to Pipe, foam glass jacket < 3"	24	LF	116.0	2,784	
	The Following in Heat Tape to Piping	1	LS			360
00 00 23	Insulation to Pipe, foam glass jacket < 3"	24	LF	15.0	360	
	The Following in Hangers @ 8ft o.c.	1	LS			1,740
00 00 23	Hangers to Pipe, foam glass jacket < 3"	3	EA	580.0	1,740	
	The Following in Valves	1	LS			11,000
00 00 23	Valves 3" in CWS	2	EA	5,500.0	11,000	
HVAC AIR DISTRIBUTION						
<u>THE FOLLOWING IN ENLARGED SCOPE (SHEET M204, M205)</u>						
	The Following in Ductwork Connections	1	LS			11,000
00 00 23	Provide new transition connecting existing to new AHU	2	LS	5,500	11,000	
	The Following in HVAC Controls Instrumentation	1	LS			75,600
00 00 23	AHU Alt-2 Control Points	42	EA	1,800.0	75,600	<i>Allowance</i>
	The Following in High Lift Equipment and Material Handling	1	LS			120,000

4.2 AIR HANDLING UNIT (BID ALTERNATE #2) BUILD UP

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
00 00 23	High Lift Equipment	2.0	LS	30,000.0	60,000	Allowance
00 00 23	Material Handling	2.0	LS	30,000.0	60,000	Allowance
	General Conditions	1	LS			26,000
00 00 23	Allowance for testing and flushing	1	LS	1,500	1,500	
00 00 23	Allowance for commissioning	40	HR	350	14,000	
00 00 23	Allowance for associated builder's work	1	LS	10,500	10,500	
F	SPECIAL CONSTRUCTION & DEMOLITION					
F10	Special Construction (ADA Requirements)				-	
F20	Selective Building Demolition				-	
G	SITWORK AND UTILITIES					
G10	Site Preparation				-	
G20	Site Improvements				-	
G30	Site Mechanical Utilities	1	SF	3,000.0	3,000	
00 00 33	Site Mechanical utilities / connections / reinforcement / diversions: Utility Hook Ups	2	LS	1,500	3,000	
G40	Site Electrical Utilities	1	SF	3,000.0	3,000	
00 00 33	Site Electrical utilities / connections / reinforcements / diversions / Allowance for Utility Hook ups / Moving Piping	2	LS	1,500	3,000	
TOTAL Construction Cost (direct)		1	LS	556,014	556,014	

4.3 AIR HANDLING UNIT (BID ALTERNATE #3) BUILD UP

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
D	SERVICES					
D10	Conveying				-	
D20	Plumbing				-	
D30	HVAC				1,267,032	

DEMOLITION

The Following in Demolition 1 LS 28,500

THE FOLLOWING IN HVAC SCHEDULES (SHEET M204D)

00 00 23 Remove AHU-11 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 1 1 LS 9,500 9,500 Allowance

00 00 23 Remove AHU-12 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 3 1 LS 9,500 9,500 Allowance

THE FOLLOWING IN HVAC SCHEDULES (SHEET M206D)

00 00 23 Remove AHU-14 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 1 1 LS 9,500 9,500 Allowance

00 00 23 Remove AHU-15 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 3 LS 9,500 - Removed

THE FOLLOWING IN HVAC SCHEDULES (SHEET M207D)

00 00 23 Remove AHU-27 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 1 LS 9,500 - Removed

NEW WORK

EQUIPMENT AND ASSOCIATED APPURTENANCES

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THE FOLLOWING IN HVAC SCHEDULES (SHEET M702)

The Following in Air Handling Unit Schedule (Bid Alternate 3) 1 LS 806,880

4.3 AIR HANDLING UNIT (BID ALTERNATE #3) BUILD UP

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
00 00 23	Air Handling Unit, East Conc LVL1, Manuf = York, Total CFM 19290, 464 MBH, 6651 LBS [AHU-11]	19,290	CFM	12.6	242,160	
00 00 23	Air Handling Unit, East Conc LVL1, Manuf = York, Total CFM 13640, 460 MBH, 5232 LBS [AHU-12]	13,640	CFM	13.4	183,380	
00 00 23	Air Handling Unit, East Conc LVL2, Manuf = York, Total CFM 32320, 1128 MBH, 11990 LBS [AHU-14A]	32,320	CFM	11.8	381,340	
HYDRONIC PIPING						
<u>THE FOLLOWING IN ENLARGED CHILLER ROOM SCOPE (SHEET M204, M206)</u>						
	3" Piping	112	LF			17,360
00 00 23	Piping 3" CHR TO AHU 11, 12,14 , 15, 27	56	LF	155.0	8,680	
00 00 23	Piping 3" CHS TO AHU 11, 12, 14, 15, 27	56	LF	155.0	8,680	
	The Following in Insulation to Piping	1	LS			12,992
00 00 23	Insulation to Pipe, foam glass jacket < 3"	112	LF	116.0	12,992	
	The Following in Heat Tape to Piping	1	LS			1,680
00 00 23	Insulation to Pipe, foam glass jacket < 3"	112	LF	15.0	1,680	
	The Following in Hangers @ 8ft o.c.	1	LS			8,120
00 00 23	Hangers to Pipe, foam glass jacket < 3"	14	EA	580.0	8,120	
	The Following in Valves	1	LS			55,000
00 00 23	Valves 3" in CWS	10	EA	5,500.0	55,000	

4 .3 AIR HANDLING UNIT (BID ALTERNATE #3) BUILD UP

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
HVAC AIR DISTRIBUTION						
<u>THE FOLLOWING IN ENLARGED SCOPE (SHEET M204)</u>						
The Following in Ductwork Connections		1	LS			27,500
00 00 23	Provide new transition connecting existing to new AHU	5	LS	5,500	27,500	
The Following in HVAC Controls Instrumentation		1	LS			189,000
00 00 23	AHU Alt-3 Control Points	105	EA	1,800.0	189,000	Allowance
The Following in High Lift Equipment and Material Handling		1	LS			84,000
00 00 23	High Lift Equipment	2	LS	21,000.0	42,000	Allowance
00 00 23	Material Handling	2	LS	21,000.0	42,000	Allowance
General Conditions		1	LS			36,000
00 00 23	Allowance for testing and flushing	1	LS	7,000	7,000	
00 00 23	Allowance for commissioning	40	HR	350	14,000	
00 00 23	Allowance for associated builder's work	1	LS	15,000	15,000	
F	SPECIAL CONSTRUCTION & DEMOLITION					
F10	Special Construction (ADA Requirements)					-
F20	Selective Building Demolition					-
G	SITWORK AND UTILITIES					
G10	Site Preparation					-
G20	Site Improvements					-

4.3 AIR HANDLING UNIT (BID ALTERNATE #3) BUILD UP

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
G30	Site Mechanical Utilities	1	SF	7,500.0	7,500	
00 00 33	Site Mechanical utilities / connections / reinforcement / diversions: Utility Hook Ups	5	LS	1,500	7,500	
G40	Site Electrical Utilities	1	SF	7,500.0	7,500	
00 00 33	Site Electrical utilities / connections / reinforcements / diversions / Allowance for Utility Hook ups / Moving Piping	5	LS	1,500	7,500	
TOTAL Construction Cost (direct)		1	LS	1,282,032	1,282,032	

4.4 AIR HANDLING UNIT (BID ALTERNATE #4) BUILD UP

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
D	SERVICES					
D10	Conveying				-	
D20	Plumbing				-	
D30	HVAC				475,851	

DEMOLITION

The Following in Demolition 1 LS 9,500

THE FOLLOWING IN HVAC SCHEDULES (SHEET M205D)

00 00 23	Remove AHU-27 and associated appurtenances, Demolish CHWS/R back to shut off valve - Ref 1	1	LS	9,500	9,500	Allowance
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NEW WORK

EQUIPMENT AND ASSOCIATED APPURTENANCES

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THE FOLLOWING IN HVAC SCHEDULES (SHEET M702)

The Following in Air Handling Unit Schedule (Bid Alternate 4) 1 LS 325,347

00 00 23	Air Handling Unit, East Term LVL1, Manuf = York, Total CFM 20,000, 6,711 LBS [AHU-27]	20,000	CFM	16.3	325,347	
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HYDRONIC PIPING

THE FOLLOWING IN ENLARGED CHILLER ROOM SCOPE (SHEET M204, M205)

3" Piping 24 LF 4,200

00 00 23	Piping 3" CHR TO AHU 27	12	LF	175.0	2,100	
00 00 23	Piping 3" CHS TO AHU 27	12	LF	175.0	2,100	

The Following in Insulation to Piping 1 LS 2,784

00 00 23	Insulation to Pipe, foam glass jacket < 3"	24	LF	116.0	2,784	
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4.4 AIR HANDLING UNIT (BID ALTERNATE #4) BUILD UP

	The Following in Heat Tape to Piping	1	LS			360
00 00 23	Insulation to Pipe, foam glass jacket < 3"	24	LF	15.0		360
	The Following in Hangers @ 8ft o.c.	1	LS			1,740
00 00 23	Hangers to Pipe, foam glass jacket < 3"	3	EA	580.0		1,740
	The Following in Valves	1	LS			5,500
00 00 23	Valves 3" in CWS	1	EA	5,500.0		5,500
HVAC AIR DISTRIBUTION						
<u>THE FOLLOWING IN ENLARGED SCOPE (SHEET M204, M205)</u>						
	The Following in Ductwork Connections	1	LS			5,500
00 00 23	Provide new transition connecting existing to new AHU	1	LS	5,500		5,500
	The Following in HVAC Controls Instrumentation	1	LS			52,920
00 00 23	AHU Alt-2 Control Points	29	EA	1,800.0		52,920 <i>Allowance</i>
	The Following in High Lift Equipment and Material Handling	1	LS			42,000
00 00 23	High Lift Equipment	0.7	LS	30,000.0		21,000 <i>Allowance</i>
00 00 23	Material Handling	0.7	LS	30,000.0		21,000 <i>Allowance</i>
	General Conditions	1	LS			26,000
00 00 23	Allowance for testing and flushing	1	LS	1,500		1,500
00 00 23	Allowance for commissioning	40	HR	350		14,000
00 00 23	Allowance for associated builder's work	1	LS	10,500		10,500

4.4 AIR HANDLING UNIT (BID ALTERNATE #4) BUILD UP

F	SPECIAL CONSTRUCTION & DEMOLITION				
F10	Special Construction (ADA Requirements)				-
F20	Selective Building Demolition				-
G	SITWORK AND UTILITIES				
G10	Site Preparation				-
G20	Site Improvements				-
G30	Site Mechanical Utilities	1	SF	1,500.0	1,500
00 00 33	Site Mechanical utilities / connections / reinforcement / diversions: Utility Hook Ups	1	LS	1,500	1,500
G40	Site Electrical Utilities	1	SF	1,500.0	1,500
00 00 33	Site Electrical utilities / connections / reinforcements / diversions / Allowance for Utility Hook ups /Moving Piping	1	LS	1,500	1,500
TOTAL Construction Cost (direct)		1	LS	478,851	478,851

4 .5 BOILER ROOM BUILD UP (Bid Alternate #5)

CSI	Description	Quantity	UoM	Rate	Total \$	Comment
D	SERVICES					
D10	Conveying	1	LS	-	-	
D20	Plumbing				-	
D30	HVAC	1	LS		2,084,913	

DEMOLITION

THE FOLLOWING IN HVAC SCOPE (SHEET M203D)

The Following in Enlarged Boiler Room Demolition **120,400**

00 00 23	Disconnect & Remove HWB-1 through HWB-5 and associated appurtenances - Ref 1	5	LS	8,000.0	40,000	
00 00 23	Existing Flue Duct Manifold serving Hot Water Boilers to removed - Ref 7	300	LF	60.0	18,000	
00 00 23	Allowance for Crane / Crawler Crane to remove equipment. Note access can be doen via hallway, doors and elevator	2	LS	30,000.0	60,000	

THE FOLLOWING IN HVAC SCOPE (SHEET M209D)

The Following in Enlarged West Terminal Roof Demo **5,500**

00 00 23	Remove existing exhaust fan, roof curb and associated appurtenances serving Boiler - Ref 1	1	LS	5,500.0	5,500	
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4 .5 BOILER ROOM BUILD UP (Bid Alternate #5)

NEW WORK EQUIPMENT

EQUIPMENT AND ASSOCIATED APPURTENANCES

THE FOLLOWING IN ENLARGED BOILER ROOMSCOPE (SHEET M203)

The Following in Condensing Boiler Schedule **1 LS 1,050,000**

00 00 23	Condensing Boiler, Boiler Room, Manuf. = Aerco BKM2000, 2 HP, 2,000,000 BTU (2,000 MBH), 1500 LBS [HWB-1]	2,000	MBH	105.0	210,000
00 00 23	Condensing Boiler, Boiler Room, Manuf. = Aerco BKM2000, 2 HP, 2,000,000 BTU (2,000 MBH), 1500 LBS [HWB-2]	2,000	MBH	105.0	210,000
00 00 23	Condensing Boiler, Boiler Room, Manuf. = Aerco BKM2000, 2 HP, 2,000,000 BTU (2,000 MBH), 1500 LBS [HWB-3]	2,000	MBH	105.0	210,000
00 00 23	Condensing Boiler, Boiler Room, Manuf. = Aerco BKM2000, 2 HP, 2,000,000 BTU (2,000 MBH), 1500 LBS [HWB-4]	2,000	MBH	105.0	210,000
00 00 23	Condensing Boiler, Boiler Room, Manuf. = Aerco BKM2000, 2 HP, 2,000,000 BTU (2,000 MBH), 1500 LBS [HWB-5]	2,000	MBH	105.0	210,000

The Following in Fan Schedule **1 LS 35,850**

00 00 23	Fan Schedule, West Terr Roof, Boiler Flue Draft Inducer, Manuf = Enerflex, Model RSV450 Centrifugal Fan, 3250 CFM, 100 LBS [FEF-1]	1	EA	35,850.0	35,850
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HYDRONIC PIPING

THE FOLLOWING IN ENLARGED BOILER ROOM SCOPE (SHEET M203)

The Following in Hydronic Piping **1 LS 214,889**

14" Piping

00 00 23	Piping 14" V	60	LF	380.0	22,800
00 00 23	Allow for Vertical Connections - Assume 10%	6	LF	380.0	2,280

4 .5 BOILER ROOM BUILD UP (Bid Alternate #5)

	6" Piping	44	LF		
00 00 23	Piping 6" CHR	20	LF	258.0	5,160
00 00 23	Piping 6" CHS	20	LF	258.0	5,160
00 00 23	Allow for Vertical Connections - Assume 10%	4	LF	258.0	1,032
	3" Piping	66	LF		
00 00 23	Piping 3" CHS	30	LF	168.0	5,040
00 00 23	Piping 3" CHR	30	LF	168.0	5,040
00 00 23	Allow for Vertical Connections - Assume 10%	6	LF	168.0	1,008
	The Following in New Gas Line / Connections	76	EA		
00 00 23	Expand the scope of demolition for the existing gas line to the entire system . Rout new 6" NG line	145	LF	279.5	40,529
00 00 23	Connect Existing gas service and flue system to new boilers [Ref 1]	5	EA	2,500.0	12,500
00 00 23	Connect new 6" CHWS/R to existing inlets/outlets in Room [Ref 2]Existing gas service and flue system to new boilers [Ref 1]	12	EA	1,500.0	18,000
00 00 23	Connect Hot water boilers (HWB's) to existing gas manifold [Ref 3]	5	EA	2,500.0	12,500
00 00 23	New HHWR and HHWS manifold serving hot water boilers (HWB's), connect piping back to main [Ref 4]	1	EA	2,500.0	2,500
00 00 23	New Flue duct manifold serving hot water boilers (HWB's) [Ref 5]	83	LF	980.0	81,340
	The Following in Insulation to Piping	1	LS		65,712
00 00 23	Insulation to Pipe, foam glass jacket < 14"	66	LF	234.0	15,444
00 00 23	Insulation to Pipe, foam glass jacket < 6"	44	LF	148.0	6,512
00 00 23	Insulation to Pipe, foam glass jacket < 3"	66	LF	116.0	7,656
00 00 23	Insulation to Pipe, foam glass jacket , Mixed Connections	76	ea.	475.0	36,100

4 .5 BOILER ROOM BUILD UP (Bid Alternate #5)

	The Following in Heat Tape to Piping	1	LS			3,990
00 00 23	Heat tape to Pipe, foam glass jacket < 14"	66	LF	15.0	990	
00 00 23	Heat tape to Pipe, foam glass jacket < 6"	44	LF	10.0	440	
00 00 23	Insulation to Pipe, foam glass jacket < 4"	66	LF	10.0	660	
00 00 23	Heat tape to Pipe, foam glass jacket < 2"	76	EA	25.0	1,900	
	The Following in Hangers / support structure @ 8ft o.c.	1	LS			25,410
00 00 23	Hangers to Pipe, foam glass jacket < 14"	8	EA	2,100.0	17,325	
00 00 23	Hangers to Pipe, foam glass jacket < 6"	6	EA	600.0	3,300	
00 00 23	Hangers to Pipe, foam glass jacket < 4"	8	EA	580.0	4,785	
	The Following in Labels @ 8ft o.c.	1	LS			1,430
00 00 23	Hangers to Pipe, foam glass jacket 2-14"	22	EA	65.0	1,430	
	The Following in Valves	1	LS			114,000
00 00 23	New Shut Off valves serving CHWSR Branch connector to new 3" lines [Ref 6]					
00 00 23	8" Shut Off Control Valve	2	EA	21,000.0	42,000	Allowance
00 00 23	6" Shut Off Control Valve	4	EA	18,000.0	72,000	Allowance
	The Following in Miscellaneous Schedule	1	LS			1,500
00 00 23	Breaking Glass Casing	1	LS	1,500.0	1,500	
	The Following in HVAC Test and Balance	1	LS			8,712
00 00 23	Test and Balance	2,904	SF	3.0	8,712	Allowance

4 .5 BOILER ROOM BUILD UP (Bid Alternate #5)

	The Following in HVAC Commissioning	1	LS			14,520
00 00 23	GC Commissioning	2,904	SF	5.0	14,520	<i>Allowance</i>
	The Following in HVAC Controls Instrumentation	1	LS			168,000
00 00 23	L1-Draft Fan Control Points	70	EA	1,200.0	84,000	
00 00 23	CDS (Controlled Draft System) Control Points	70	EA	1,200.0	84,000	
	The Following in Miscellaneous HVAC Items	1	LS			105,000
00 00 23	Controls Instrumentation	5	LS	15,000.0	75,000	<i>Allowance</i>
00 00 23	Life Safety Control Panel	5	LS	6,000.0	30,000	<i>Allowance</i>
	The Following in High Lift Equipment and Material Handling	1	LS			150,000
00 00 23	High Lift Equipment	5	LS	15,000.0	75,000	<i>Allowance</i>
00 00 23	Material Handling	5	LS	15,000.0	75,000	<i>Allowance</i>
D40	Fire Protection					-
D50	Electrical					251,800
	The Following in Electrical Service, Connections, Feeders and Lighting Allowance @ new escalators Panels and Distribution	5,000	SF			251,800
00 00 26	Furnish and install new 80A Circuit Breaker with all required mounting hardware to serve new escalator motor, new circuit breaker IAC shall match existing (Keynote 1)	6	EA	2,400	14,400	<i>Allowance</i>
00 00 26	Existing Panel to be used to support escalator pit equipment (Keynote 2)	6	EA	500	3,000	<i>Allowance</i>
00 00 26	Furnish and install new (2) 80A Circuit Breaker with all required mounting hardware to serve new escalator motor, new circuit breaker IAC shall match existing (Keynote 3)	6	EA	5,000	30,000	<i>Allowance</i>

4 .5 BOILER ROOM BUILD UP (Bid Alternate #5)

Primary Feeders and incoming services

00 00 26	Allowance for electrical incoming services and utility upgrades	6	LS	10,000	60,000	<i>Allowance</i>
00 00 26	Allowance for extending new feeders from existing termination / board	6	LS	15,000	90,000	<i>Allowance</i>

Branch Power and distribution

The following in Electrical Plan Level 1 Area A

00 00 26	Extend and connect circuiting from junction box to outlets in area with same circuit numbers. Route #12 conductors (Keynote #1)	6	EA	1,500.0	9,000	<i>Allowance</i>
00 00 26	Provide weatherproof maintenance receptacle, switch and light fixture (4' LED Strip) within escalator pit (Keynote #2)	6	EA	900.0	5,400	<i>Allowance</i>

Lighting

00 00 26	Allowance for electrical lighting and controls	5,000	SF	8.0	40,000	<i>Allowance</i>
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G SITEWORK AND UTILITIES

G30 Site Mechanical Utilities

-

G40 Site Electrical Utilities

12,500

00 00 33	Site Electrical utilities / connections / reinforcements / diversions /Allowance for Utility Hook ups /Moving Piping	5	LS	2,500	12,500	<i>Allowance</i>
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TOTAL Construction Cost (direct)

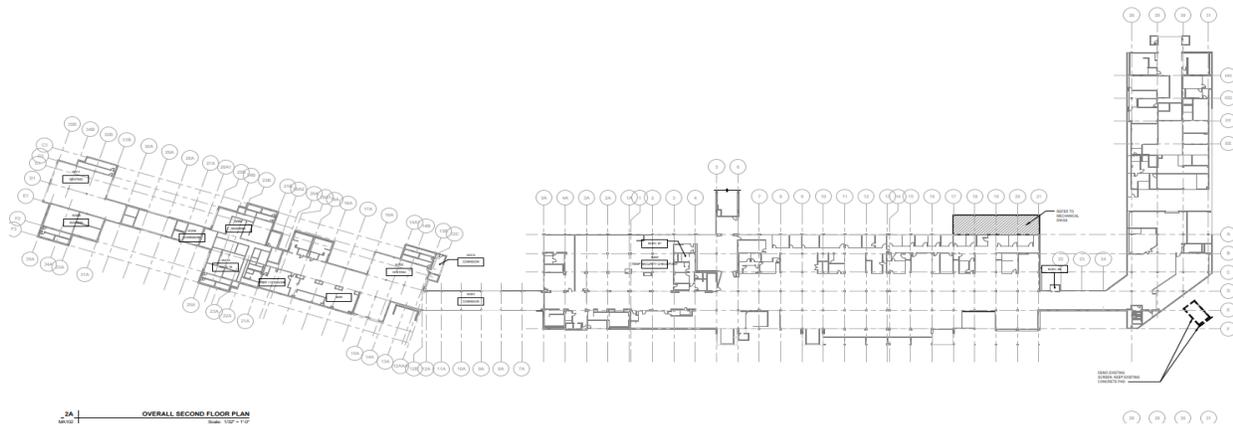
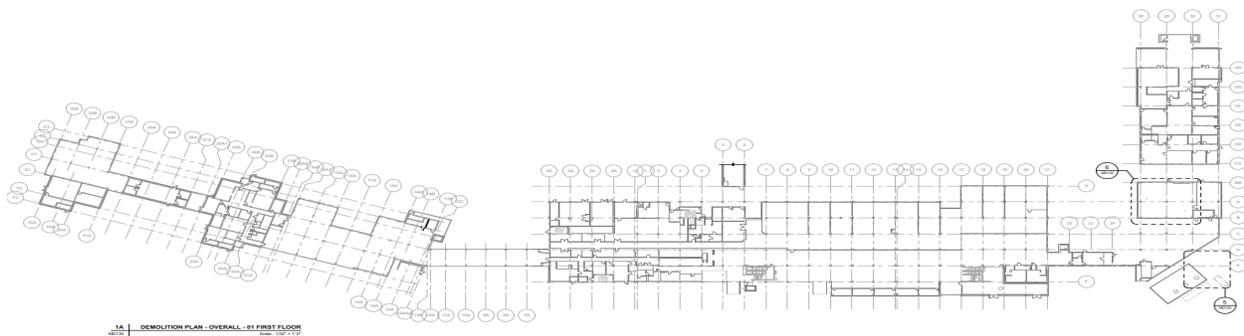
1 EA 2,349,213 2,349,213

5.0 Basis for Concept Opinion of Probable Cost Estimate

1.00 Scope of Work

- 1.01 Provide Issue for Bid (IFB) Estimate Opinion of Probable Cost Estimate for JMAA HVAC updates to Boiler Rm and Chiller Rm at Jackson-Medgar Wiley Evers International Airport, Jackson, Mississippi
- 1.02 This estimate has been prepared pursuant to an agreement between the JMAA and AECOM, for the purpose of predicting costs of the work for the above referenced project.
- 1.03 The work involves, but is not limited to, the following:

Scope of work is the Upgrade of HVAC to Boiler Room and Chiller Room, including code upgrades as required. The new work includes but is not limited to HVAC upgrade to the Chiller Room and Boiler Room ~ namely **(3 EA) Alternates for AHU's , any architectural works and supporting HVAC, electrical, mechanical, and fire-life safety improvements, connections, etc.**



Overall Construction Schedule: Bid Date (to be determined) ~ assume Start date of July 2024

2.00 Work Breakdown Structure (WBS)

- 2.01 The estimate is organized on the first level based on the following:
 - Tab 1.0 : One Page Executive Summary of Work with Estimated Cost
 - Tab 2.0 : Trade Summary showing contingency, escalation, etc.
 - Tab 3.0 : Unifomat Summary showing contingency, escalation, etc.

5.0 Basis for Concept Opinion of Probable Cost Estimate

Alternate #4

- Tab 4.1 : Alternate 1 (AHU's) Build up (in Unifomat and CSI Divisions)
- Tab 4.2 : Alternate 2 (AHU's) Build up (in Unifomat and CSI Divisions)
- Tab 4.3 : Alternate 3 (AHU's) Build up (in Unifomat and CSI Divisions)
- Tab 4.4 : Alternate 4 (AHU's) Build up (in Unifomat and CSI Divisions)
- Tab 4.5 : Alternate 5 (Boiler's) Build up (in Unifomat and CSI Divisions)
- Tab 5.0 : Basis of Cost Estimate
- Tab 6.0 : Inclusions
- Tab 7.0 : Exclusions
- HVAC Backup

2.02 Costs are compiled in Unifomat structure and assembly build up, then organized on a second level by Construction Specifications Institute (CSI) Master format 2004 Divisions done (Trade Level).

3.00 Estimate Classification

3.01 *Estimate Classification: IFB Estimate*

Stage of Design: 80% - 100% Design Estimate

Similar Industry Terms for this Level of Estimate:

- * Construction Documents
- * Baseline
- * Definitive Estimate
- * Detailed Estimate

Project Definition: 60%-95%

Expected Project Contingency: 5%-15% (use: Design = 0%, Construction = 5%)

Background Information Used: based on project report, limited design data and recommendations

4.00 Estimate Markups

4.01 Cost Estimate Markups	Indirect Costs	Indirect Costs
	<u>Terminal 1 Escalators</u>	<u>Gold's Garage Escalators</u>
* B&O Tax - N/A	0.0%	0.0%
* Sales Tax - Included (Assume Tax Exempt)	0.0%	0.0%
* Phasing Allowance	1.5%	1.5%
* General Requirements	9.0%	9.0%
* General Conditions	11.0%	11.0%
* Insurance: CCIP/Sub Bonds/General Liability	4.7%	4.7%
* Construction Overhead Profit and Fee:	10.0%	10.0%
* Estimate Contingency : Construction	5.0%	5.0%
* Estimate Contingency : Design (Reduced to 0%)	<u>0.0%</u>	<u>0.0%</u>
Sub-Total	41.2%	41.2%
* Escalation taken to thru Jan 2025	5.0%	5.0%
*Note: Assumes Tax Exempt		

5.0 Basis for Concept Opinion of Probable Cost Estimate

4.02 Estimate markups are indirect costs that are expressed as a lump sum or calculated as a percentage of the subtotal of the estimated construction costs. Indirect costs are costs that are required to complete a project. Direct costs are costs that are used to run the contractor's business. The following markups, at rates appropriate to the class of estimate, have been included in the cost estimate:

- General Conditions: The contractor's general conditions take into account the cost of items that cannot be associated with a specific element of work, but must be furnished to complete a project. This includes cost items such as supervision, temporary facilities, office trailers, toilets, utilities, permits, photographs, small tools, local Business & Occupation (B & O) Taxes, bonds, and insurance. General conditions costs prior to the 100% level of design are typically calculated as a percentage of the total project construction cost.
- Escalation: This is a provision for an increase in the cost of equipment, material, and labor above the costs specified in the contract, due to continuing price changes over time. Cost estimators analyze cost trends in local and national market conditions to temper and forecast escalation percentages. These factors are used to escalate project costs in current dollars to the expected Bid Date; TBD but assumed July 2024 or July 2025
- General Contractor/Subcontractor Overhead: This markup accounts for costs associated with office and field employees that are engaged in daily work activities tied to the project life throughout all of the construction phases (pre-construction, construction, and close-out procedures).
- General Contractor/Subcontractor Profit: This markup includes the cost amount as compensation for risk and efforts to undertake and complete the project. This percentage will be based directly on economic conditions for the local construction industry, bidding environment, and perception of the risk of losing money on the project.
- Design Contingency: A percentage is added to the estimate to account for uncertainties inherent in the estimating process. As design progresses through the project design life cycle, this percentage typically decreases downward at design completion. This percentage is anticipated by the estimator as the relative stability of the design documents, project scope, and assumptions upon which the estimate is based are assessed. Design contingency typically accounts for costs associated with design that may not be complete enough to determine final quantities at the time of estimate preparation, items that may defy precise quantification, or as an added contingency to items that are computed by capacity factoring or other conceptual methods.
- Construction Contingency: Construction contingency is a factor added to the estimate to account for the estimators anticipated overrun of the estimate due to errors and omissions in the final bid documents and/or design that may not be complete enough to determine final quantities. This is generally an estimator assumed markup to serve as a reserve for project change orders that may be inherent with the project design
- Security Allowance: Percentage allowance included for Security

5.00 Basis of Estimate / Pricing

- 5.01 This cost estimate pertains to 607298500: Project JMAA Upgrades. The Project is to be constructed at Jackson-Medgar Wiley Evers International Airport, Jackson, Mississippi. This cost proposal reflects the level of detail and completeness of the information provided.
- 5.02 This estimate has been prepared based on the AECOM's Issue for Bid set of Drawings_Addendum 1 (Alt1-3), dated 11 June 2024. These documents are inclusive of drawings, photographs and specifications where possible.
- 5.03 Conversations with members of the design team were also used in preparation of this estimate. Any design and engineering changes and/or additions produced subsequent to these documents are not included in this estimate.
- 5.04 The cost estimate is based on costs likely to be experienced in 06/10/24 - 07/31/2025. Material and equipment costs are included. The cost of labor is based on Davis Bacon act prevailing rates for the county in which the project is to be constructed. Labor costs are based upon a 40 hour work week with the anticipation of some overtime. This estimate does not include the cost of shift work or the cost of an accelerated schedule.
- 5.05 This Basis of Estimate report (along with the above inclusions, exclusions, assumptions and clarifications), and the attached Cost Estimate are intended to be, and constitute a single document.
- 5.06 This estimate is based upon the measurement of quantities where possible from the documents issued by the design team. Conceptual estimating methods are used for any remaining scope in conjunction with references from similar projects recently estimated by AECOM.
- 5.07 Unit pricing shown within this estimate reflects AECOM's opinion of construction costs obtainable for working in Jackson, Mississippi area for this project on the date of the estimate. The intention of this estimate is to reflect fair market value for the construction of this project using a Competitive Sealed Bid (CSP) procurement method. It is not a prediction of low bid. Pricing is based upon competitive bidding with a minimum of 6 qualified General Contractors familiar with the conditions of working on this project. Pricing is also based on a minimum of Three (3) bids for all subcontractor work. If fewer bids are received the bid results are expected to vary from the costs presented in this estimate.

5.0 Basis for Concept Opinion of Probable Cost Estimate

5.08 Material

Material Unit Pricing is derived from vendor quotes, historical cost data, market analysis, estimator judgement, and published cost books.

5.09 Labor

Labor unit pricing is based on probable labor production rates and crew sizes. Labor cost = (quantity/labor production rate) x labor rate where the labor production rate is the number of units of work produced by a person in a specified period of time, usually hours or days. This rate varies between trades, projects, climatic conditions, job supervision, complexity of the installation process, and other factors. The most current Davis-Bacon prevailing labor rates will apply.

5.10 Equipment

The Contractor's major construction equipment costs include the rental, transportation, handling on the job, operation and maintenance costs. The equipment costs will be allocated to each appropriate line item, but may be shown as an individual line item if a major piece of equipment is used for many different work tasks during the project. Hourly, daily, weekly, and monthly equipment rental costs will be derived from the "Equipment Watch publications for Rental Rate Blue Books and Cost Reference Guide."

5.11 Subcontractor Costs

The subcontractor's quote will be reviewed for items that are included and excluded from their quotation and the length of time the subcontractor will honor the price.

5.12 Other Construction Costs (Allowances)

This includes miscellaneous cost items that are not included in the unit costs. They may include costs associated with the following factors: weather, crew transportation, soil conditions, hazardous material removal, utility relocations, wetland replacements, road/highway/special crossings, traffic control, ground water, labor strikes, material and/or subcontractor availability, general economic conditions, complexity of the project, construction phasing, and the quality of the construction drawings and specifications.

6.00 Inclusions, Exclusions and All Assumptions

6.01 General Information / Notes

- This estimate assumes that the contractor will have full access to the site during normal business hours
- We have assumed that the general building permit if required, will be obtained by, and paid for by the owner.
- We have assumed that all easements, if required, will be obtained by, and paid for by the owner.
- We have assumed that all public space permits, if required, will be obtained by, and paid for by the owner.
- We have assumed that all 3rd party inspections, materials and soil testing will be conducted by the owner's consultants, and paid for
- Our estimate includes all General Contractor and Subcontractor Markups as indicated previously.
- This Basis of Estimate report (along with the above inclusions, exclusions, assumptions and clarifications), and the attached Cost Estimate are intended to be, and constitute a single document.

6.02 Clarifications / Assumptions / Inclusions

Division 1: General Conditions

- Scope has been included as indicated in the documents.
- For estimating purposes, we have assumed a 17 month duration for the construction phase, with phasing
- Our estimate includes the cost of temporary construction facilities.
- We have assumed that space for a temporary yard, lay down area and limited parking will be available on site.
- We have included all Mobilization and Demobilization for items required for initiating the project and demobilization upon completion (includes, general conditions, general requirements, staff, insurance, Overhead & Fee, Insurance, etc.)
- We have included allowance for traffic control and regulation, temporary partitioning, cordoned off work areas.
- We have included provision for small amount for night time work or after hours. (labor adjustment for Security Requirements & Overtime Work)
- We have assumed that space for a temporary yard, lay down area and limited parking will be available on site.
- We have included allowance for Dumpster service.
- We have included for Site Traffic Control and Regulation.

5.0 Basis for Concept Opinion of Probable Cost Estimate

Division 2-31: Scope of Work	Reference
<u>Alternate #1 Scope</u>	
• Alternate #1.1: The Following in Air Handling Unit Schedule [AHU-17, AHU-18, AHU-19, AHU-20, AHU-21, AHU-22, AHU-23 & AHU-24]	Tab 4.1
• Alternate #1.2: The Following in Air Handling Unit Schedule [AHU-9]	Tab 4.2
• Alternate #1.3: The Following in Air Handling Unit Schedule [AHU-11, AHU-12]	Tab 4.3
• Alternate #1.4: The Following in Air Handling Unit Schedule [AHU-27]	Tab 4.4
• Alternate #1.5: The Following in Condensing Boiler Unit Schedule [HWB 1-5]	Tab 4.5

6.03 Drawings List

Division 2-28: Per IFB CD Drawings Addedndum No.1 dated 06.11,2024

Conditions of Construction

The pricing is based on the following general conditions of construction

A Bid date, per PO Issue of June / July 2024

The general contract will be competitively bid with qualified general and main subcontractors

There will be small business / Minority Group / Women, etc. set requirements

The contractor will be required to pay prevailing wages (RS Means)

The general contractor will have access to the site during restricted business hours (typically 6am - 6pm)

Restrictive Working Conditions & Overtime may be needed

Escalation Market Report

Escalation % has been Included: Refer above and on Executive Summary Sheets

6.04 Exclusions

- All Scope outside the IFB CD Drawings, stated in this estimate and summarized in each work tab - scope of work.
- Owner supplied and installed furniture, fixtures and equipment, including Way Finding (except for signs included in estimate)
- Building demolition except where shown
- Compression of schedule, premium or shift work and restrictions on the contractor's working hours
- Testing and Inspection Fees are excluded "unless note"
- Architectural, design and construction management fees
- Assessment, taxes, finance, legal and development charges
- Builder's risk, project wrap-up and other owner provided insurance programs
- Any Additional cost associated with phasing / sequencing outside the 5 phases included
- Modifications to the scope of work since the date of the design documents outlined above
- Unforeseen subsurface conditions
- Restrictive technical specifications or excessive contract conditions
- Hazardous Abatement of any buildings being demolished is Excluded
- Non-competitive bidding conditions
- Sole source specifications of materials or products
- Bids delayed beyond the projected schedule
- Impact Fees and Permits
- Land Acquisition and real estate fees
- Owner's field inspection costs
- General building permit - check
- Testing and Inspection Fees
- Off Site Work
- Owner contingency
- Cost impacts associated with restricted access to the immediate work area

May 6, 2025

5.0 Basis for Concept Opinion of Probable Cost Estimate

7.00 Statement of Estimated Costs

7.01 AECOM has no control over the cost of labor and material, the general contractor's or any subcontractors method of determining prices, or competitive bidding and market conditions. This opinion of probable costs of construction is made on the basis of experience, qualifications, and best judgement of professional construction cost managers familiar with the construction industry. AECOM cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from this or subsequent cost estimates.

7.02 AECOM has no control over the quality, completeness, intricacy, constructability, or coordination of design documents, or over the amount of funds available for this project. AECOM is not responsible for design revision costs in the event that the estimate is in excess of the established budget.

7.03 AECOM's staff of professional cost managers has prepared this estimate in accordance with general accepted principles and practices. Our staff is available to discuss its contents with any interested party.

7.04 This estimate is based on the measurement and pricing of quantities wherever information is provided and/or reasonable assumptions for other work not covered in the drawings or specifications, as stated within this document. Unit rates have been obtained from historical records and/or discussion with contractors. The unit rates reflect current bid costs in the area. All unit rates relevant to subcontractor work include the subcontractors overhead and profit unless otherwise stated. The mark-ups cover the costs of field overhead, home office overhead and profit and range from 15% to 25% of the cost for a particular item of work. Pricing reflects probable construction costs obtainable in the project locality on the date of this statement of probable costs. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the construction work for all subcontractors and general contractors, with a minimum of 4 bidders for all items of subcontracted work and 3-4 general contractor bids. Experience indicates that a fewer number of bidders may result in higher bids, conversely an increased number of bidders may result in more competitive bids. Since AECOM has no control over the cost of labor, material, equipment, or over the contractor's method of determining prices, or over the competitive bidding or market conditions at the time of bid, the statement of probable construction cost is based on industry practice, professional experience and qualifications, and represents AECOM's best judgment as professional construction consultant familiar with the construction industry. However, AECOM cannot and does not guarantee that the proposals, bids, or the construction cost will not vary from opinions of probable cost prepared by them.

7.05 This estimate assumes that the general construction contract will be administered as a competitively bid/negotiated GMP with a selected construction manager / general contractor and prequalified subcontractors. Costs associated with a restrictive bidding market, including small business set-asides (minority, woman or veteran/service disabled veteran owned) and sole-sourced contractors are not included, and can cause a significant increase to the overall cost of the project.

8.00 Recommendations for Cost Control

8.01 AECOM recommends that the Owner, Architect, and Engineers carefully review this entire document to ensure that it reflects their design intent. Requests for modifications of any apparent errors or omissions to this documents should be made to AECOM within ten (10) days of receipt of this estimate. Otherwise, it will be understood that the contents have been concurred and accepted. If the project is over budget, or if there are unresolved budgeting issues, alternative systems/schemes should be evaluated before proceeding further into design.

6.0 Risks and Opportunities

The following risk and opportunities exist and will be evaluated further as the design progresses:

Risks

- 1 Demolition works; extent of asbestos (likely low risk)
- 2 Ground conditions where services are required to be modified below slab
- 3 Extent of bulk excavation and carting away (over excavation required) - *minimal anticipated*
- 4 Constraints imposed by phasing and adjacent structures
- 5 Extent of additional Sitework, Hardscape at grade level
- 6 Incoming services (electrical); minor provision for local reinforcement and distribution
- 7 Ground water, in particular impact in Escalator Pits / Excavation - low risk
- 8 Escalation delays to start-on-site due to planning; design decisions etc.
- 9 Extent of plant/equipment space / lay down area provisions generally
- 10 Load bearing capacity of current structures - low risk
- 11 Estimate based on Addendum #1 Drawings, dated 11 June 2024

Opportunities

- 1 Procure all equipment at once
- 2 Utilization of existing building infrastructure - leverage existing; minimal modifications
- 3 Utilization of existing structures / buildings - leverage carrying capacity (risk)
- 4 MEP strategy to optimize energy demand; reduce feeders and distribution where feasible
- 5 Repair Remediation / Concrete Repair Work @ chiller Room and Boiler Room floor

7.0 Exclusions

The following are excluded, but may have an impact on the financial robustness of this scheme. It is advised that this list is reviewed and managed in conjunction with the design team in order to make alternative provision for these items as required - in conjunction with the client.

- 1 Pre-construction escalation beyond anticipated start date
- 2 Reinforcement to site power/utilities and incoming services - beyond that indicated in the estimate
- 3 Taxes (other than sales tax)
- 4 Client administration/project liaison costs; marketing or branding costs
- 5 Finance charges and client project insurance cost
- 6 Demolitions are limited to identified "on-site" scope only - off-site works excluded; interface with public street
- 7 Airport Contributions
- 8 Out of hours working / Overtime
- 9 Remediation of contaminated land
- 10 Asbestos discovered during demolition works
- 11 Restricted to area of work @ HVAC to Chiller & Boiler Room only
- 12 Exterior Sitework beyond CD and DD drawings
- 13 Work relates to Alternates 1-3, per Addendum #1, dated 11 June 2024 only, excludes all other work