ADDENDUM **No. 2**

RFP NO.: **620-008**

PROJECT TITLE: **Humanities Building Central Plant**
Cooling Tower Replacement, Rockville Campus

SUBMISSION DATE AND TIME: BY 3:00 PM ON NOVEMBER 4, 2019

MONTGOMERY COLLEGE
Procurement Office
9221 Corporate Boulevard
Rockville, Maryland 20850

THIS ADDENDUM IS TO PROVIDE ANSWERS TO THE FOLLOWING QUESTIONS:

NOTE: Similar requests for information that were received from different Contractors have been grouped under a single addendum item where appropriate, with a single comprehensive answer provided.

The following items offer clarifications that do not change any requirements of the RFP documents.

Item 2-1 Question: We are the Marley representative. After reading the RFP documents, the sole source specification for the cooling tower kind of keeps us out. Please let me know if Marley is acceptable alternative to BAC.

Answer: The cooling tower is brand specific. Since the early 1990s, the college has standardized on BAC components for its cooling towers and ice storage modules, in order to reduce operations and maintenance costs. BAC has proven to produce, high quality, reliable products that exceed projected life expectancy. BAC headquartered in Jessup, Maryland, and the local manufacturer's representative have historically responded quickly and professionally to assist the College with warranty or emergency maintenance issues. This is important to the College since most of the BAC equipment is a single source of failure which affects cooling to many buildings. Loss of this equipment results in the disruption of classes in the affected buildings.

Item 2-2 Question: Can we reuse the existing conduit from the junction box to the motor control center and just pull new feeders thru?

Answer: Please include the price for providing new conduits for proposed circuits in the HU building as shown on the drawings per RFP requirements. The College may consider reuse of conduits during the construction if deemed appropriate considering condition and cost credit.

Item 2-3 Question: On page 004213 B-3, it talks about a Procurement Office Questionnaire. Is this different than the Contractor's Qualification Statement Forms that goes with the technical portion of the bid?

Answer: The Procurement Questionnaire is different than the Contractor's Qualification Statement. Procurement Questionnaire intends to provide the feedback, only if you are NOT

planning on submitting a proposal. The Contractor's Qualification Statement MUST be included in the technical proposal submission.

Item 2-4 Question: Due to the congested area within the existing Chiller/Boiler Room area could existing rigid steel conduits that are adequate size be reused/modified to new equipment from the new 18"x18" pull box #6 to the VFD and existing Panel locations?

Answer: Please provide the price for providing new conduits for proposed circuits in the HU building as shown on the drawings per RFP documents. The College may consider reuse of conduits during the construction if deemed appropriate considering condition and cost credit.

Item 2-5 Question: Does the Cooling Tower need to be removed and installed during normal working hours or during after-hours? Are there any restrictions on weekend work?

Answer: Normal working hours are acceptable. However, please be advised paragraph 1.1.A or Section 002213 pertains to this project, and the College may request the Contractor to refrain from noisy work during testing periods. For the purposes of this project, testing periods are defined as mid-terms and finals. Please refer to the academic calendar on the College's website for when these testing periods are scheduled. Weekend work is acceptable. Contractor is to comply with Montgomery County and City of Rockville noise ordinances at all times while executing the work.

Item 2-6 Question: Please advise if the Electrical Wires from the Panel to the Cooling Tower may be re-used or will they need to be removed and replaced?

Answer: Remove existing and provide new as shown on design drawings.

The following items offer clarification that do change the requirements of the RFP documents.

PLEASE MAKE CHANGES TO THE RFP DOCUMENTS AS FOLLOWS:

Item 2-7 **To extend the RFP closing date and time** from 3 PM, October 30, 2019 **to 3 PM, November 4, 2019.**

Item 2-8 To delete 4th paragraph, Section 002113-7 in its entirety and replace with the following:

Step 3: If the lowest submitted Base Price Total (line 11) less Deduct **Alternate No. 1** exceeds available construction funds, Deduct Alternate No. 2 submitted by each Offeror shall be subtracted from each Offeror's previous bid total, and the results re-ranked from lowest to highest. The resulting lowest priced Bid, Base Price Total less Deduct Alternates No. 1 and No. 2, shall be evaluated against available construction funds for the project. If the resulting submitted price exceeds the total amount of the available funds for the construction, no award of contract is expected to be made by the College from the bid results.

Item 2-9 Question: Is X-ray welding going to be a requirement on this project? I see it is in the specs but, is really overkill for this type of project. Please advise.

Answer: Welds shall be tested per ANSI B31.1 Hydrostatic testing and visual inspection.

Item 2-10 Question: Will we be able to set up crane in alley during regular hours?

Answer: A crane may be located in the service drive to the south of the Technical Center during normal business hours. A crane lift plan is to be submitted for review and approval prior to any crane mobilization to the site.

Item 2-11 Question: These towers are a direct replacement and the supply to chillers are piped so close there is no room for an additional Butterfly valve or control valve in this line. Can we eliminate the flexs? These towers are on a separate pad outside and on a VFD. Please advise if these are necessary?

Answer: See addendum #2 on M0.01 and M1.01. Additional manual butterfly isolation valves shall not be required on cooling tower outlet piping. Provide control valve and flexible connection.

Item 2-12 Question: The basin sweeper piping to me the drawings aren't very clear. Existing piping do we remove or not or just change control valve and reconnect? One more thing type of piping for the pipe if required to change. PVC or Black Schedule 40.

Answer: New PVC Basin Sweeper piping shall be provided from the existing side stream separator to cooling tower basin connection. The existing side stream separator control valves shall be installed in the locations indicated on M1.01.

Item 2-13 Question: Please provide the enclosure type for the cooling tower VFDs. The specification 262913 2.03 BB indicates either a NEMA 1 or NEMA 12 are acceptable for indoor locations, but are determined on environmental conditions. Please confirm if NEMA 1 or NEMA 12 are required.

Answer: Cooling tower VFD's shall be provided with NEMA 1 enclosures.

Item 2-14 Question: Please confirm the enclosure type for the basin heater control panel. Note 21 on E1.02 states the enclosure to be NEMA 4X stainless steel. Specification Section 236500 2.02 G 3 calls for NEMA 3R.

Answer: Basin heater control panel shall be NEMA 3R per specification 23 65 00.

Item 2-15 Question: Referencing New Work Notes: Item 1 on Drawing Page S1.01 states "Protect Surrounding Structures Using Plastic Tenting and then Power Tool Clean All Structural Steel Members, Including Those Left In Place, to Remove Rust and Scale." Could you please advise if the intent is to install Plastic/Poly Sheeting over the entire structure to facilitate cleaning of the rust and scale?

Answer: Provide protective plastic/poly sheeting where required to protect adjacent buildings and vehicles during cleaning of steel.

Index of Attachments to Addendum No. 2

Specification sections or portions reissued in entirety:
NONE

Drawings reissued in entirety:
M0.01 - Mechanical Legend, Abbreviations, General Notes, and Schedules and Details
M1.01 - Partial Site Plan – Mechanical – Demolition and New Work
E1.04 – Humanities Building – Partial Floor Plan – Power – New Work

Sketches:
NONE

Items issued for informational purposes:
Addendum #2 Drawing Narrative

END OF ADDENDUM NO. 2

Date: October 29, 2019

Purchasing Manager: Yu Zhu

Please sign below to acknowledge receipt of the Addendum and include it in the Technical Proposal submission. NOTE: Addendum receipt acknowledgement will not be accepted by facsimile or email.

_____	_____
Applicant's Signature	Company
_____	_____
Title	Date

Patrick Johnson, MBA
Director of Procurement

Addendum 2

Project:	MC RV HU (BLDG No. 208) Central Plant Cooling Tower Replacement	**Date:**	10/28/2019
		Reference:	
Title:	Addendum #2 Drawing Narrative	**BKM Project No:**	19104.01

COMMENTS:

Mechanical:

M0.01 "Mechanical Legend, Abbreviations, General Notes, Schedules and Details"

- Manual butterfly (shut off) valves have been eliminated from the cooling tower outlet piping.

M1.01 "Part Site Plan – Mechanical – Demolition and New Work"

- Manual butterfly (shut off) valve has been added to the condenser water return piping to match the detail on M0.01.

Electrical:

E1.04 "Humanities Building Part Floor Plan – Power – New Work"

- The location of panel board PP1 and the BAS panel has been identified.

The related Drawings are attached with the changes clouded.

MECHANICAL GENERAL NOTES

1. THE MECHANICAL CONTRACT DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO INDICATE SCOPE AND THE GENERAL ARRANGEMENT OF THE SYSTEMS. WHERE APPLICABLE THE FOLLOWING NOTES SHALL APPLY TO ALL MECHANICAL (HVAC, AND PIPING) SYSTEMS.
2. THOUGH SOME PIPING OFFSETS AND TRANSITIONS ARE INDICATED, IT IS NOT THE INTENT OF THE DRAWINGS TO SHOW ALL OFFSETS AND TRANSITIONS REQUIRED. THE CONTRACTOR SHALL FULLY COORDINATE THE MECHANICAL WORK WITHIN ITSELF AND WITH THE WORK OF ALL OTHER TRADES TO PROVIDE COMPLETE AND OPERABLE SYSTEMS WITHOUT INTERFERENCES.
3. REFER TO MECHANICAL DETAILS FOR TYPICAL EQUIPMENT CONNECTIONS.
4. AS AN INTEGRAL PART OF THESE DOCUMENTS, THE CONTRACTOR SHALL REFER TO THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
5. CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS PRIOR TO THE BEGINNING OF ANY WORK. FAILURE TO VISIT THE SITE SHALL IN NO WAY RELIEVE THE CONTRACTOR FROM ANY RESPONSIBILITY.
6. CONTRACTOR SHALL USE CARE WHEN PERFORMING SELECTIVE DEMOLITION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO FINISHES, EQUIPMENT, STRUCTURE, AND MECHANICAL/ELECTRICAL SYSTEMS AND EQUIPMENT. SHOULD ANY DAMAGE OCCUR THE CONTRACTOR SHALL RESTORE DAMAGED AREA/ITEMS TO ORIGINAL CONDITION TO MEET THE OWNER'S SATISFACTION.
7. CONTRACTOR SHALL NOTIFY AND COORDINATE WITH THE OWNER ANY UTILITY OUTAGES. OWNER SHALL BE GIVEN A MINIMUM OF 72 HOURS NOTICE (THREE WORKING DAYS) FOR ANY OUTAGES.
8. DEMOLITION AND NEW WORK THAT WILL RESULT IN DOWN TIME OF SERVICES (HVAC ETC.) SHALL BE PERFORMED AT PREMIUM TIME AS REQUIRED TO MINIMIZE DOWN TIME TO ADJACENT SPACES. COORDINATE ALL OUTAGES WITH OWNER.
9. CONTRACTOR SHALL PRE-TEST CONDENSER WATER PUMPS (LOCATED IN CHILLER PLANT) TO DOCUMENT EXISTING FLOW RATE (GPM) AND TOTAL DYNAMIC HEAD PRIOR TO START OF WORK. PROVIDE DOCUMENTATION OF TEST TO THE ENGINEER AND OWNER .
10. CONTRACTOR SHALL TEST/BALANCE ALL HYDRONIC EQUIPMENT AND DEVICES INDICATED ON THE DOCUMENTS. HYDRONIC EQUIPMENT AND DEVICES SHALL INCLUDE, BUT NOT BE LIMITED TO: COOLING TOWERS,CONDENSERS, PUMPS, BALANCING VALVES, ETC. BALANCE ALL EQUIPMENT AND DEVICES TO THE WATER FLOWS (GPM) INDICATED ON THE DOCUMENTS (WHERE FLOWS ARE NOT CLEARLY INDICATED, CONTACT THE A/E FOR CLARIFICATION).
11. WHERE VARIABLE FREQUENCY DRIVES (VFD'S) ARE INDICATED FOR MECHANICAL EQUIPMENT, THEY SHALL COMPLY WITH ALL REQUIREMENTS OUTLINED WITH THE ELECTRICAL SPECIFICATIONS FOR VFD'S. WHERE VFD'S ARE PROVIDED BY THE MECHANICAL CONTRACTOR, OR AS A PORTION OF A PACKAGED MECHANICAL UNIT, THE ELECTRICAL SPECIFICATIONS SHALL ALSO APPLY. ALL VFD'S FOR THE PROJECT, WHETHER PROVIDED BY THE MECHANICAL OR ELECTRICAL CONTRACTOR, SHALL BE PROVIDED BY A SINGLE MANUFACTURER, AND SHALL INCLUDE THE SAME FEATURES AND OPTIONS.

ATC GENERAL NOTES

1. THE ATC WORK SHALL INCLUDE PROVISIONS FOR A COMPLETE AND OPERABLE CONTROL SYSTEM, INCLUDING ALL DEVICES REQUIRED TO ACHIEVE THE SEQUENCES AND FUNCTIONS INDICATED THROUGHOUT THE CONTRACT DOCUMENTS.
2. THE ATC CONTRACTOR SHALL FURNISH AND INSTALL ALL ELECTRICAL WIRING AND CONDUIT FROM POWER SOURCE, INCLUDING TERMINATION TO ALL REQUIRED ATC RELATED POWER CONNECTIONS INCLUDING, BUT NOT LIMITED TO, DDC CONTROLLERS, SENSORS, VALVE ACTUATORS, ATC PANELS, ETC. THE ATC CONTRACTOR SHALL OBTAIN A SEPARATE ELECTRICAL PERMIT AS REQUIRED BY THE LOCAL AUTHORITY. THE ATC CONTRACTOR SHALL BE WHOLLY RESPONSIBLE FOR ALL POWER REQUIREMENTS NECESSARY FOR A COMPLETE INSTALLATION FROM THE POWER SOURCE TO ALL ATC RELATED CONNECTIONS.
3. THE ATC CONTRACTOR SHALL COORDINATE AND VERIFY THAT ALL CONTROLLERS, DEVICES AND ACCESSORIES ARE PROVIDED AS REQUIRED TO ACCOMPLISH ALL CONTROL FUNCTIONS AND SEQUENCES INDICATED IN THE CONTRACT DOCUMENTS. WHERE CONTROL RELATED DEVICES ARE NOT PROVIDED BY AN EQUIPMENT MANUFACTURER, IT SHALL BE THE RESPONSIBILITY OF THE ATC CONTRACTOR TO PROVIDE THE CONTROL DEVICES REQUIRED TO ACCOMPLISH THE FUNCTIONS AND SEQUENCES INDICATED.
4. THE ATC CONTRACTOR SHALL PROVIDE ALL CONTROLLERS, DEVICES, POINTS, ETC REQUIRED TO ACCOMPLISH THE CONTROL SEQUENCES AND FUNCTIONS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS. ALL POINTS SHALL BE TIED INTO THE BUILDING AUTOMATION SYSTEM (BAS). IN ADDITION, THE ATC CONTRACTOR SHALL PROVIDE ALL CONTROLLERS, DEVICES, POINTS, ETC REQUIRED TO CONTROL, OPERATE AND MONITOR ALL EQUIPMENT (IE. VALVES, FLOW MEASURING DEVICES, SENSORS, ETC.) INDICATED THROUGHOUT THE CONTRACT DOCUMENTS.
5. PROVIDE EQUIPMENT STATUS FOR ALL MECHANICAL EQUIPMENT. EQUIPMENT FAILURES SHALL BE ALARMED AT THE BAS.
6. PROVIDE CURRENT SENSING RELAYS FOR ALL MECHANICAL EQUIPMENT AS REQUIRED TO PROVIDE EQUIPMENT STATUS. EQUIPMENT STATUS SHALL BE INDICATED AS THE BAS.
7. PROVIDE TEMPERATURE SENSORS TIED INTO THE BAS AT THE INLET AND OUTLET OF ALL HEAT EXCHANGE EQUIPMENT (COOLING TOWERS, ETC.).
8. WATER PRESSURE DROP THROUGH ATC CONTROL VALVES SHALL NOT EXCEED 10 FT. HEAD. TWO-POSITION ATC VALVES UTILIZED FOR ISOLATION OR SHUT-OFF PURPOSES SHALL BE FULL LINE SIZE.
9. ALL SETPOINTS INDICATED ON THE SEQUENCES SHALL BE ADJUSTABLE.
10. ALL ATC WIRING SHALL BE INSTALLED IN CONDUIT.
11. PROVIDE BATTERY BACKUP (24 HOURS) IN ALL NEW ATC PANELS TO PERMIT CONTINUOUS POWER TO CONTROL DEVICES ON A LOSS OF POWER.
12. CONTRACTOR SHALL COORDINATE WITH SIEMENS CONTROLS TO MODIFY THE EXISTING FRONT END EQUIPMENT AS REQUIRED TO SUPPORT NEW COOLING TOWERS. THE EXISTING SIEMENS FRONT END SHALL BE ABLE TO INDEX AND MONITOR ALL COOLING TOWER SET POINTS, STATUS AND ALARMS. ALL NEW CONTROLLERS, DEVICES, AND POINTS SHALL BE PROVIDED BY PRITCHETT CONTROLS.

MECHANICAL LEGEND

COLD WATER (CW)		UNION	
CONDENSER WATER SUPPLY	CDWS	PIPING CAP	
CONDENSER WATER RETURN	CDWR	CONCENTRIC REDUCER	
CHECK VALVE		ECCENTRIC REDUCER	
BALL VALVE			
BUTTERFLY VALVE		PIPING ELBOW DOWN	
BALANCING VALVE W/ FLOW METER FITTING (VENTURI TYPE)		PIPING ELBOW UP	
2-PORT MODULATING CONTROL VALVE		PIPE CONNECTION BOTTOM	
BACKFLOW PREVENTER		PIPE CONNECTION TOP	
Y-STRAINER W/HOSE-END VALVE		HOSE-END VALVE	
FLANGED CONNECTION		VALVE IN VERTICAL POSITION	
GAUGE AND VALVE		HEAT TRACED AND INSULATED PIPE	
TEMPERATURE/PRESSURE TEST PORT		LIMIT OF DEMOLITION	
TEE		CONNECT TO EXISTING	
THERMOMETER			

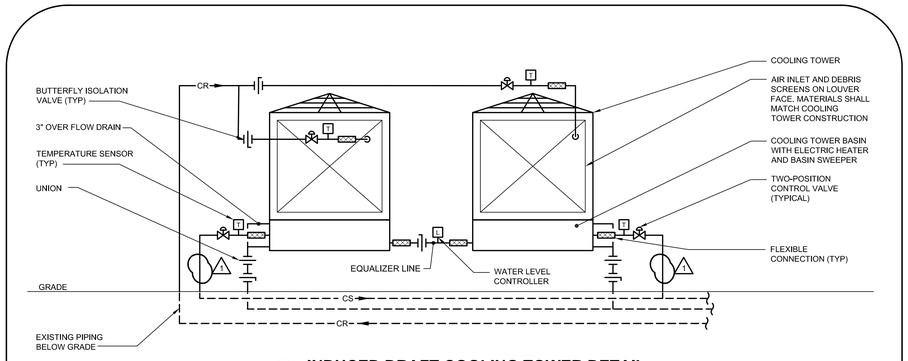
MECHANICAL ABBREVIATIONS

AUTOMATIC TEMPERATURE CONTROLS	ATC	EXISTING TO REMAIN	ETR	MINIMUM	MIN
BUILDING AUTOMATION SYSTEM	BAS	ENTERING WATER TEMPERATURE	EWT	MAXIMUM OVERCURRENT PROTECTION	MOP
BACK-FLOW PREVENTER	BFP	FLEXIBLE CONNECTION	FC	NORMALLY CLOSED	NC
BRAKE HORSEPOWER	BHP	FULL LOAD AMPS	FLA	NOT IN CONTRACT	NIC
BRITISH THERMAL UNIT	BTU	FEET	FT	NORMALLY OPEN / NUMBER	NO
BRITISH THERMAL UNITS PER HOUR	BTUH	GALLON(S)	GAL	POUNDS PER SQUARE INCH	PSI
CAPACITY	CAP	GALLONS PER MINUTE	GPM	PRESSURE	PRESS
CONDENSER WATER SUPPLY	CDWS	HEIGHT	H	QUANTITY	QTY
CONDENSER WATER RETURN	CDWR	HORSEPOWER	HP	REVOLUTIONS PER MINUTE	RPM
COOLING TOWER	CT	HEATER	HTR	REMOVE EXISTING	RX
COLD WATER (DOMESTIC)	CW	HERTZ	HZ	TESTING AND BALANCING	TAB
CONNECT TO EXISTING	CX	INCH(ES)	IN	TYPICAL	TYP
DRY BULB	DB	KILOWATT	KW	UNLESS OTHERWISE NOTED	UON
DESIGNATION	DESIG	LENGTH	L	VOLTS	V
DIAMETER	DIA	LEAVING AIR TEMPERATURE	LAT	VARIABLE FREQUENCY DRIVE	VFD
DOWN	DN	POUNDS	LBS	WIDTH	W
DIFFERENTIAL PRESSURE SENSOR	DPS	LOCKED ROTOR AMPS	LRA	WET BULB	WB
DRAWING(S)	DWG	LEAVING WATER TEMPERATURE	LWT	WATER COLUMN	WC
EXHAUST AIR	EA	MAXIMUM	MAX	WATER PRESSURE DROP	WPD
ENTERING AIR TEMPERATURE	EAT	THOUSAND BRITISH THERMAL UNITS PER HOUR	MBH		
EXTERNAL STATIC PRESSURE	ESP	MINIMUM CIRCUIT AMPACITY	MCA		

COOLING TOWER SCHEDULE

DESIG	SERVICE	GPM	MIN FLOW (GPM)	HEAD (FT)	WATER TEMPERATURE (°F)		AMBIENT WB (°F)	ELECTRICAL DATA					SIZE L x W x H (FT)	OPERATING WEIGHT (LBS)	BASIS OF DESIGN		NOTES
					EWT	LWT		FAN HP	VOLTS	PHASE	VFD	BASIN HTR KW			MANUFACTURER	MODEL	
CT-1	HU CENTRAL PLANT	1,800	815	15.5	95.0	85.0	78.0	20	460	3	YES	(2) 15	11.8 x 21.5 x 16.4	33,180	BAC	SERIES 3000 XES3E-1222-10M	1, 2, 3, 4
CT-2	HU CENTRAL PLANT	1,800	815	15.5	95.0	85.0	78.0	20	460	3	YES	(2) 15	11.8 x 21.5 x 16.4	33,180	BAC	SERIES 3000 XES3E-1222-10M	1, 2, 3, 4

NOTES:
1. BASE BID: ALL STEEL PANELS AND STRUCTURAL MEMBERS INCLUDING THE CASING PANELS, COLD WATER BASIN AND FAN CYLINDER SHALL BE CONSTRUCTED OF TYPE 304 STAINLESS STEEL AND ASSEMBLED WITH TYPE 304 STAINLESS STEEL NUTS AND BOLTS.
2. DEDUCT ALTERNATE: STEEL PANEL AND STRUCTURAL MEMBERS INCLUDING THE CASING PANELS AND FAN CYLINDER SHALL BE GALVANIZED STEEL AND ASSEMBLED WITH TYPE 304 STAINLESS STEEL NUTS AND BOLTS. THE COLD WATER BASIN SHALL BE CONSTRUCTED OF TYPE 304 STAINLESS STEEL.
3. PROVIDE DIRECT DRIVE FAN AND VFD. REFER TO DIVISION 26 FOR VFD REQUIREMENTS.
4. PROVIDE INTEGRAL BASIN SWEEPER PIPING.
5. PROVIDE COOLING TOWER SIDE INLET, OUTLET, EQUALIZER AND DRAIN CONNECTIONS. COORDINATE TOWER CONNECTION TO MATCH EXISTING CONNECTIONS IN FIELD.



1 **INDUCED DRAFT COOLING TOWER DETAIL**
NO SCALE

NOTES:
1. ALL EXTERIOR CONDENSER WATER PIPING SHALL BE HEAT TRACED AND INSULATED WITH METAL JACKET.
2. 3" DRAIN , PIPE FULL SIZE.
3. REFER TO SCHEMATICS AND PLANS FOR ADDITIONAL REQUIREMENTS, COMPONENTS, AND MATERIALS.
4. SUPPORT COOLING TOWER ON STRUCTURAL STEEL. REFER TO STRUCTURAL DIVISION FOR ADDITIONAL REQUIREMENTS.
5. PROVIDE END SWITCHES FOR ALL TWO-POSITION CONTROL VALVES.

bkm
Burdette, Koehler, Murphy & Associates, Inc.
Mechanical / Electrical Engineers
6300 Blair Hill Lane Suite 400 | Baltimore, Maryland 21209
P: 410.323.0600 | www.bkma.com

PROJECT NAME:

Montgomery College

MONTGOMERY COLLEGE
Central Administration
Office of Facilities
9221 Corporate Boulevard
Rockville, MD 20850
Telephone: 240-567-7363

HUMANITIES BLDG (BLDG NO. 208) CENTRAL PLANT COOLING TOWER REPLACEMENT

Dunlap Engineering, Inc.
Structural Engineers
8120 Woodmont Ave, Suite 410
Bethesda, MD 20814
P 410.382.3799
www.dunlapeng.com

ISSUED FOR:

	DATE:	DESCRIPTION:
	10/11/2019	BID DOCUMENTS
1	10/28/2019	ADDENDUM #2

PROJECT NO: BKM # 19104.01

SCALE: AS NOTED

DRAWN BY: JMW

CHECKED BY: JMW

DATE: 10/11/19

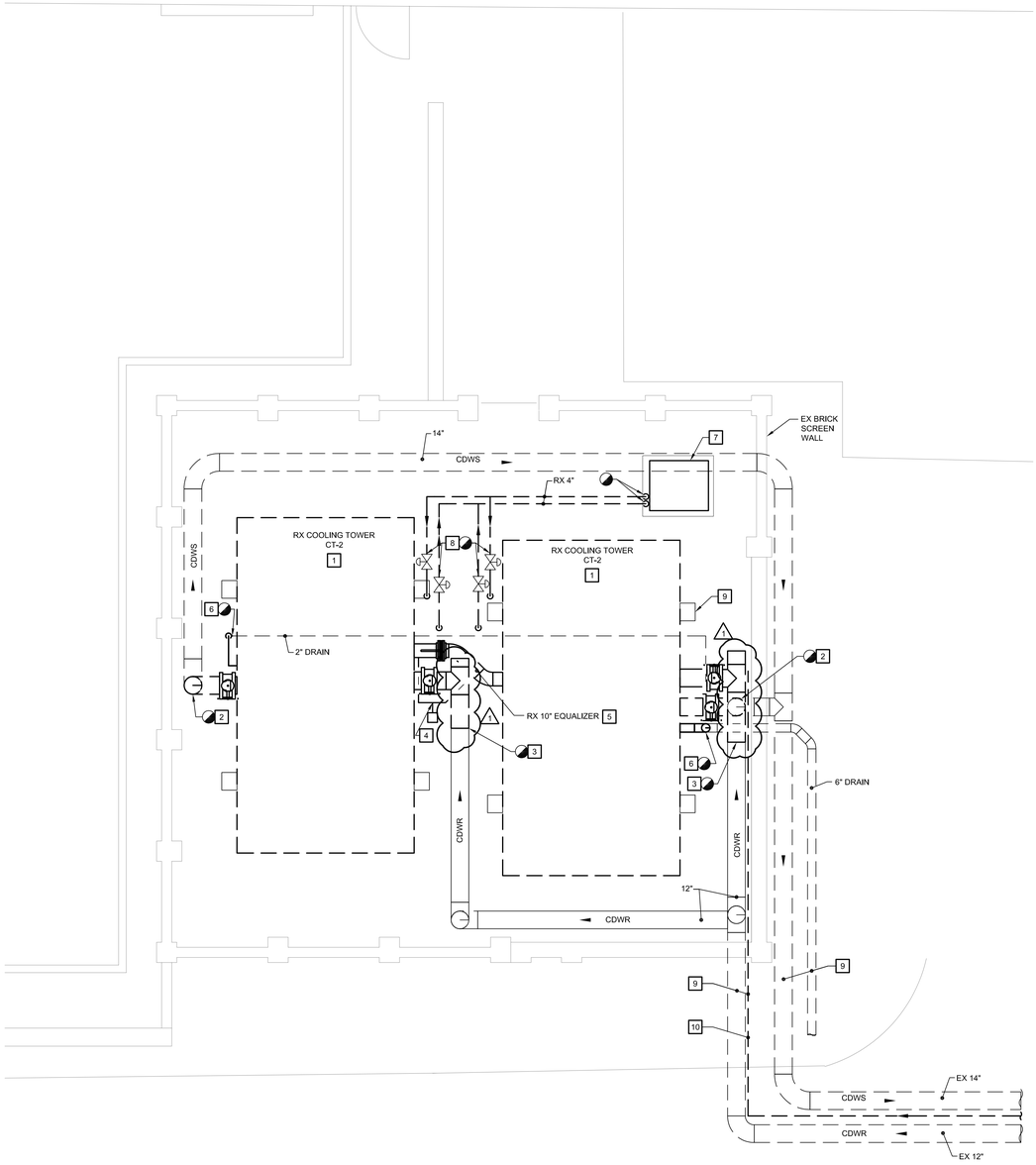
SHEET TITLE:

MECHANICAL LEGEND, ABBREVIATIONS, GENERAL NOTES, SCHEDULES AND DETAILS

DRAWING NO:

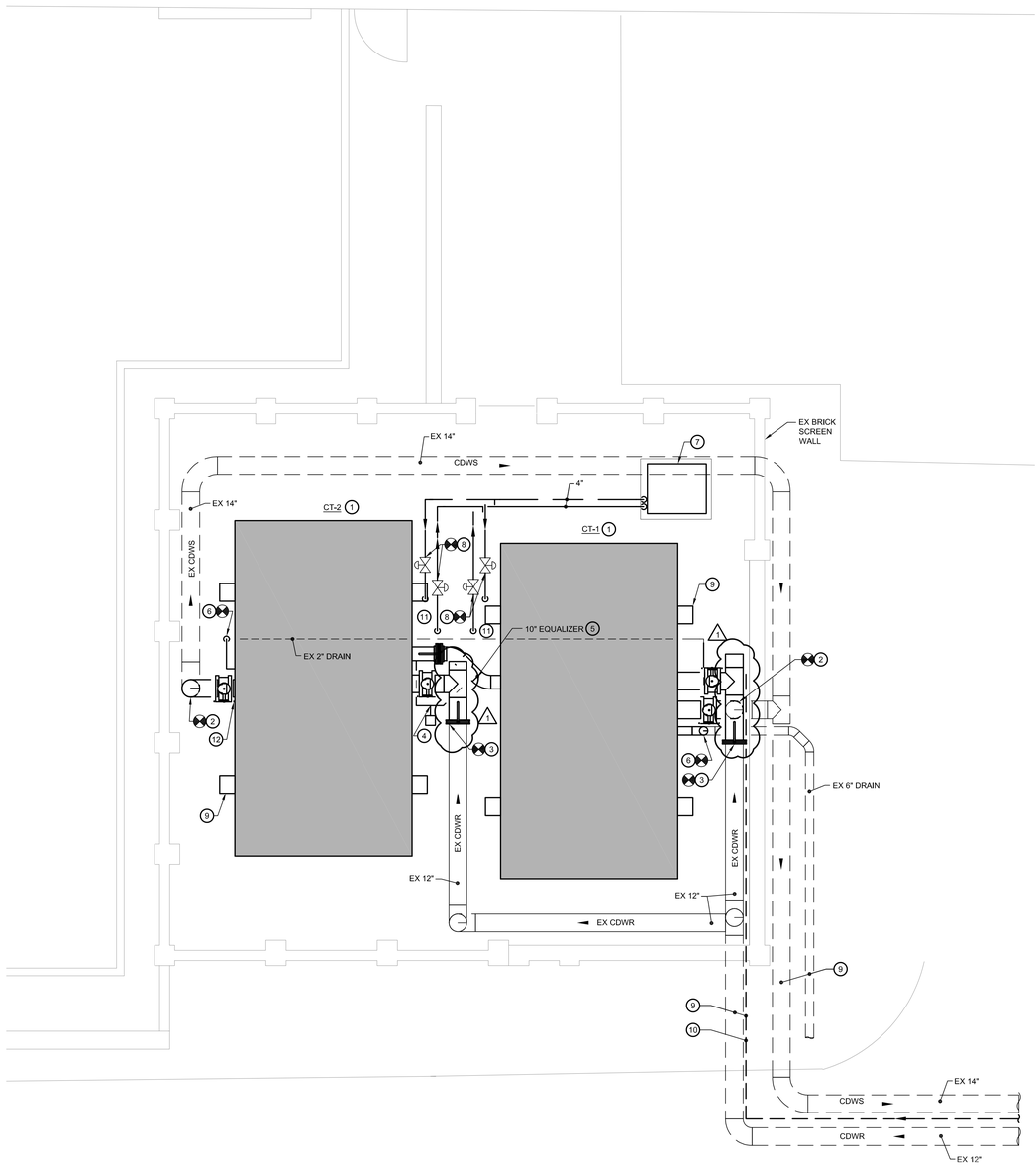
M0.01

BKM# 19104.01



1 PART SITE PLAN - MECHANICAL - DEMOLITION

SCALE: 1/4" = 1'-0"



2 PART SITE PLAN - MECHANICAL - NEW WORK

SCALE: 1/4" = 1'-0"

☐ DEMOLITION DRAWING NOTES:

1. REMOVE EXISTING COOLING TOWER AND ASSOCIATED BASIN SWEEPER PIPING, BASIN HEATER, CONTROLS AND WIRING. SEE STRUCTURAL DIVISION FOR WORK RELATED TO EXISTING STEEL.
2. REMOVE EXISTING 10" CONDENSER WATER SUPPLY PIPING AT GRADE. REMOVE EXISTING ELBOW AND CONTROL VALVE. REMOVE ALL ASSOCIATED PNEUMATIC CONTROLS AND PIPING.
3. REMOVE EXISTING 10" CONDENSER WATER RETURN PIPING AND ASSOCIATED CONTROL VALVE. REMOVE ALL ASSOCIATED PNEUMATIC CONTROLS AND PIPING.
4. REMOVE EXISTING WATER LEVEL CONTROLLER AND ALL ASSOCIATED CONTROL WIRING AND APPURTENANCES.
5. REMOVE EXISTING 10" EQUALIZER PIPING AND ASSOCIATED VALVES.
6. REMOVE EXISTING 2" DRAIN PIPING CONNECTION AS REQUIRED.
7. REMOVE AND RETAIN EXISTING SIDE STREAM SEPARATOR AND ASSOCIATED CONTROLS FOR REINSTALLATION UNDER NEW WORK. PROTECT EQUIPMENT AND CONTROLS DURING DEMOLITION.
8. REMOVE AND RETAIN EXISTING SIDE STREAM SEPARATOR CONTROL VALVES FOR REINSTALLATION UNDER NEW WORK.
9. EXISTING PIPING BELOW GRADE.
10. EXISTING ABANDONED MAKE-UP WATER BELOW GRADE.

GENERAL NOTES:

1. REFER TO M0.01 FOR MECHANICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. ALL EXISTING INSULATION AND HEAT TRACE ABOVE GRADE SHALL BE REMOVED.
3. PROVIDE NEW EXTERIOR INSULATION ON ALL PIPING ABOVE GRADE. PROVIDE INSULATION WITH ALUMINUM JACKET. PROVIDE NEW HEAT TRACE AS REQUIRED.

○ NEW WORK DRAWING NOTES:

1. NEW INDUCED DRAFT, SINGLE CELL COOLING TOWER. SEE STRUCTURAL DIVISION FOR STEEL DUNNAGE REQUIRMENTS.
2. EXTEND NEW 10" CONDENSER WATER SUPPLY PIPING TO COOLING TOWER OUTLET. PROVIDE FLEXIBLE CONNECTION AT UNIT OUTLET.
3. EXTEND NEW 10" CONDENSER WATER RETURN PIPING TO COOLING TOWER INLET. PROVIDE NEW FLEXIBLE CONNECTION AT UNIT INLET.
4. PROVIDE NEW WATER LEVEL CONTROLLER IN LOCATION INDICATED. PROVIDE NEW CONTROL WIRING BACK TO CHEMICAL TREATMENT CONTROLLER IN HU PLANT.
5. PROVIDE NEW 10" EQUALIZER PIPING AND SHUT-OFF VALVE.
6. EXTEND NEW 2" DRAIN PIPING TO COOLING TOWER.
7. REINSTALL EXISTING SIDE STREAM SEPARATOR.
8. REINSTALL EXISITING SIDE STREAM SEPARATOR CONTROL VALVES. EXTEND NEW 4" SIDE STREAM PIPING TO COOLING TOWER.
9. EXISTING PIPING BELOW GRADE.
10. EXISTING ABANDONED MAKE-UP WATER PIPING BELOW GRADE.
11. EXTEND FILTRATION SYSTEM PIPING TO COOLING TOWER BASIN SWEEPER SYSTEM. CONNECT PIPING PER MANUFACTURER'S RECOMMENDATIONS.

N

0 2' 4' 8' 12'

SCALE: 1/4" = 1'-0"

bkm
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PROJECT NAME:

Montgomery College

MONTGOMERY COLLEGE

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Office of Facilities
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HUMANITIES BLDG (BLDG NO. 208) CENTRAL PLANT COOLING TOWER REPLACEMENT

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ISSUED FOR:

.	DATE:	DESCRIPTION:
	10/11/2019	BID DOCUMENTS
1	10/28/2019	ADDENDUM #2

PROJECT NO: BKM # 19104.01

SCALE: AS NOTED

DRAWN BY: SY

CHECKED BY: JMW

DATE: 10/11/19

SHEET TITLE:

PART SITE PLAN MECHANICAL DEMOLITION AND NEW WORK

DRAWING NO:

M1.01

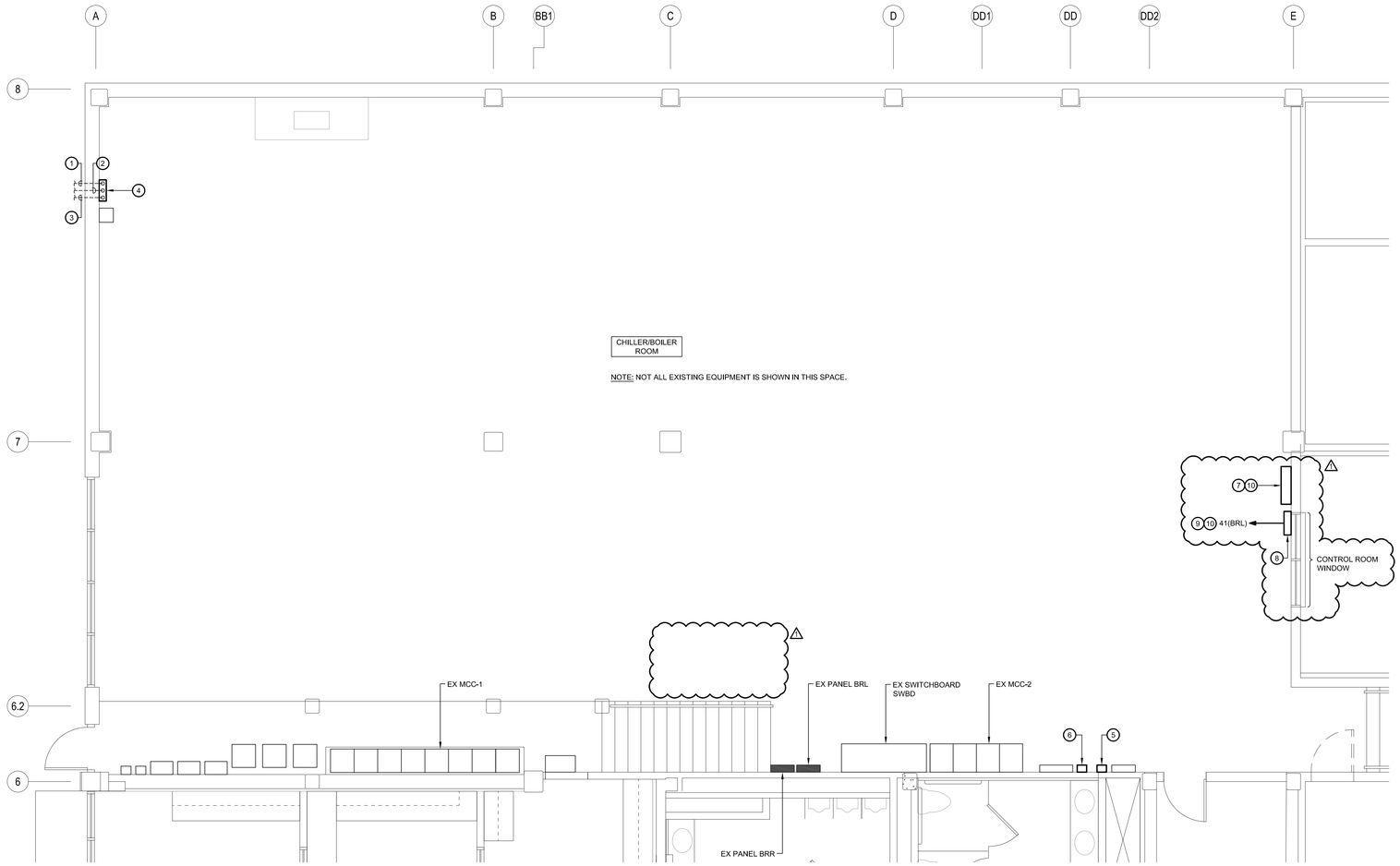
BKM# 19104.01

GENERAL NOTES:

1. REFER TO E0.01 FOR ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES.
2. UNLESS NOTED OTHERWISE, ELECTRICAL ITEMS SHOWN HEAVY DASHED (– – –) SHALL BE REMOVED, ELECTRICAL ITEMS SHOWN HEAVY SOLID (———) SHALL BE NEW AND ELECTRICAL ITEMS SHOWN LIGHT SOLID (———) SHALL BE EXISTING TO REMAIN.

DRAWING NOTES:

1. EXISTING DIRECT BURIED 3" CONDUIT NO. 1. THIS CONDUIT TO BE USED FOR CONTROL CONDUCTORS ONLY. CONTROL CONDUCTORS PROVIDED BY THE CONTROLS CONTRACTOR. REFER TO DRAWING E1.02 FOR ADDITIONAL INFORMATION.
2. EXISTING DIRECT BURIED 3" CONDUIT NO. 2. PROVIDE CT-2 POWER CONDUCTORS IN EXISTING CONDUIT. REFER TO DRAWING E1.02 FOR ADDITIONAL INFORMATION.
3. EXISTING DIRECT BURIED 3" CONDUIT NO. 3. PROVIDE CT-1 POWER CONDUCTORS IN EXISTING CONDUIT. REFER TO DRAWING E1.02 FOR ADDITIONAL INFORMATION.
4. PULL BOX NO. 6. PROVIDE 18" X 18" X 8" PULL BOX. PROVIDE PHYSICAL SEPARATION BARRIER BETWEEN POWER AND CONTROL CONDUCTORS.
5. VARIABLE FREQUENCY DRIVE FOR COOLING TOWER CT-1 PROVIDED UNDER DIVISION 23, INSTALLED UNDER DIVISION 26.
6. VARIABLE FREQUENCY DRIVE FOR COOLING TOWER CT-2 PROVIDED UNDER DIVISION 23, INSTALLED UNDER DIVISION 26.
7. PROVIDE PANELBOARD PP1. COORDINATE FINAL LOCATION WITH OWNER DURING CONSTRUCTION.
8. BAS PANEL PROVIDED BY CONTROLS CONTRACTOR. COORDINATE FINAL LOCATION WITH CONTROLS CONTRACTOR.
9. PROVIDE HOMERUN TO CIRCUIT POSITION SHOWN. PROVIDE 120V, 1P, 20A CIRCUIT BREAKER IN EXISTING SPACE SHOWN IN EXISTING PANEL BRL.
10. ROUTE ALL CONDUITS SO THEY ARE NOT IN FRONT OF THE CONTROL ROOM WINDOW. ⚠



1 HUMANITIES BUILDING PART PLAN - POWER

SCALE: 1/4" = 1'-0"

0 2' 4' 8' 12'

SCALE: 1/4" = 1'-0"

bkm
Burdette, Koehler, Murphy & Associates, Inc.
Mechanical / Electrical Engineers
6300 Blair Hill Lane Suite 400 | Baltimore, Maryland 21209
P: 410.323.0600 | www.bkma.com

PROJECT NAME:

Montgomery College

MONTGOMERY COLLEGE

Central Administration
Office of Facilities
9221 Corporate Boulevard
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HUMANITIES BLDG (BLDG NO. 208) CENTRAL PLANT COOLING TOWER REPLACEMENT

Dunlap Engineering, Inc.
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8120 Woodmont Ave, Suite 410
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ISSUED FOR:

	DATE:	DESCRIPTION:
	10/11/2019	BID DOCUMENTS
⚠	10/28/2019	ADDENDUM #2

PROJECT NO: BKM # 19104.01

SCALE: AS NOTED

DRAWN BY: BKM

CHECKED BY: BKM

DATE: 10/11/19

SHEET TITLE:

HUMANITIES BUILDING PART FLOOR PLAN - POWER - NEW WORK

DRAWING NO:

E1.04

BKM# 19104.01