February 17th 2017

GARRETT COUNTY COMMUNITY COLLEGE
STEM BUILDING 200

ADDENDUM #2

TO THE CONTRACT DRAWINGS AND SPECIFICATIONS FOR THE REFERENCED PROJECT, BID SET, DATED FEBRUARY 1ST 2017, AS PREPARED BY GRIMM AND PARKER ARCHITECTS, 11720 BELTSVILLE DRIVE, SUITE 600, CALVERTON, MD 20705.

This Addendum includes changes and clarifications to the Contract Documents. This information includes the following:

SPECIFICATIONS:

ITEM NO. 1: SECTION 08 80 00 – GLAZING

ADD Add to paragraph 1.3 – Submittals:

"I. Submittals for Glass Canopies:

1. ***Provide product data for all proposed components, materials, products, and accessories.***
    a. ***For each type glass, provide maximum allowable stress in both horizontal and vertical directions.***
    b. ***Provide product data for all fittings and hardware.***
2. ***Shop drawings:***
    a. ***Plans, elevations, and sections illustrating shape, configuration, and dimensions.***
    b. ***Illustrate method of assembly, installation, and glazing.***
    c. ***Provide details for support framing, reinforcement, connections, joints, anchors, and other fabrication and installation conditions.***
    d. ***Indicate required tolerances and coordination with adjacent elements and work of other trades.***
3. ***Calculations: Show compliance with performance criteria and applicable loads with stamp of Licensed Professional Engineer registered in the State of Maryland."***

ADD Add paragraph 1.9 as follows:

"***1.9 DESIGN AND PERFORMANCE CRITERIA FOR GLASS CANOPY***

A. Design the size and quantity of components, and install glass canopy in accordance with ASTM E1300 to withstand these loads without breakage, loss, failure of seals, product deterioration, and other defects.

1. Dead and live loads: Determined by ASCE 7-10 and calculated in accordance with applicable codes.

2. Seismic loads: System shall be designed and installed to comply with applicable seismic requirements for Project location and Seismic Zone 1 defined by of ICC/IBC.

3. Movement and deflection of structural support framing.

4. Effects of applicable wind load acting inward and outward normal to plane of canopy in accordance with ASTM E330.

5. Thermal loads and movement:

a. Ambient temperature range: 120 degrees F.

b. Material surfaces range: 180 degrees F.

B. Provide and install exterior gaskets, sealants, and other glazing accessories to resist water penetration. There shall be no penetration at 15 pounds/square foot test pressure and 5 gallons/hour/square foot water rate tested in accordance ASTM E331.

ITEM NO. 2: SECTION 09 68 13 – TILE CARPETING

DELETE Delete from paragraph 2.2A – Materials:

Delete the following line:

"4. CPT4: Mannington Commercial, Recoarse II 38 oz, Color 8413 Traverse Tan."

ITEM NO. 3: SECTION 23 09 00 – INSTRUMENTATION AND CONTROL FOR HVAC

REVISE Revise paragraph 2.18-2-C-1.a.1:

Revise paragraph to read:

"1) Provide 46" Touchscreen (UL approved, powered by 110 Volt wall plug) with native resolution of 1360 x 768 60 HZ (minimum) and all necessary cables"

Recess mount screen so when mounted the screen won't project more than 4" from the wall in order to meet ADA requirements.

ITEM NO. 4: SECTION 28 13 00 – ACCESS CONTROL

REVISE Revise paragraph 2.4H:

Revise paragraph to read:

"H. Materials and Programming to be obtained by:

1. Christina Corey, Intertech CI, 1501 Preble Avenue Pittsburgh PA 15233. Ccorey@intertechci.com 412-980-1229

2. ARK Systems"

ITEM NO. 5: SECTION 28 13 00 – ACCESS CONTROL

DELETE Section 2.1 to be deleted in its entirety.

ITEM NO. 6: SECTION 28 13 00 – ACCESS CONTROL

DELETE Section 2.2 to be deleted in its entirety.

DRAWING ITEMS:

ITEM NO. 7: CIVIL SHEET C2.0

REVISE Width of concrete sidewalk has been increased to 6'-0". (see attached drawing)

ITEM NO. 8: ARCHITECTURAL SHEET A-3.2

REVISE Flooring material at south entry Vestibule 200A to be PT1. Owner will provide removable roll-out mats on top of porcelain tile. CPT4 has been removed from the project. (see attached drawing)

ITEM NO. 9: ARCHITECTURAL SHEET A-5.2

ADD Provide "No Smoking" decal at entry doors. (see attached drawing)

ITEM NO. 10: ARCHITECTURAL SHEET A-6.1

REVISE Cabinet changes have been made to drawings 5 and 7.

DELETE A note was deleted from drawing 22. (see attached drawing)

ITEM NO. 11: ARCHITECTURAL SHEET A-9.2

REVISE Cabinet changes have been made in Physics/Earth Science #226. The size of the sink in the southwest corner of Physics/Earth Science #226 has been revised.

ADD Missing size for the sink in northeast corner of Physics/Earth Science #226 has been noted. (see attached drawing)

ITEM NO. 12: ELECTRICAL SHEET E-0.2 – LIGHTING FIXTURE SCHEDULE

ADD For types 'G1', 'G1E', 'G2', and 'G3' under the COMMENTS column add: ***"PROVIDE UNIT PRICING."***

ITEM NO. 13: PLUMBING SHEET P-0.1 – FOUNDATION - PLUMBING

DELETE Foundation drain around addition and existing foundation drain around existing building in its entirety. Delete associated notes.

ITEM NO. 14: PLUMBING SHEET P-2.1 – FIRST FLOOR - PLUMBING

ADD 3" SW piping to OHDs that have been added to either side of units in penthouse. SW piping shall connect to 3" SW piping in ceiling space.

REVISE Location of P5 and associated piping in Engineering/Robotics 236. Shift piping and fixture project east 4'-0".

ADD ½" CW piping to glass ware dishwasher (DW) in Biology/Prep Storage 229B for connection to drain cooling kit.

ITEM NO. 15: PLUMBING SHEET P-3.1 – MECHANICAL ROOM AND PENTHOUSE FLOOR – PART PLANS

ADD Total of three (3) additional 3" open hub drains (OHDs) in penthouse for condensate collection. Add two (2) additional drain connections and condensate traps to opposite side of AHUs so that each unit drains on each side (6 total OHDs, 12 condensate connections and traps, 2 on each side of unit). Add drawing note #1 to point to condensate traps that have been added.

ADD Condensate drain and trap on opposite side (right side) of AHU-1 in mechanical room and drain to 4" FD-A.

REVISE Pipe condensate from Split A/C Unit in IT 220A adjacent to mechanical room to floor drain to north.

REVISE Shift location of 4" FD-A in mechanical room between boiler #1 & #2 project north 1'-6" so that it is off of equipment pad.

ITEM NO. 16: PLUMBING SHEET P-6.2 – LP GAS & VACUUM SYSTEM RISER DIAGRAMS

REVISE Note referring to underground vacuum piping. Change note to read ***"Vacuum gas piping in 3" PVC conduit below slab. Piping shall be soft copper tubing, type 'L' and no joints (typ)."***

ITEM NO. 17: MECHANICAL SHEET M-7.4 – MECHANICAL DETAILS

REVISE Piping diagram has been revised. Refer to sketch M-2.1 for additional information.

REVISE Equipment and design notes have been revised. Refer to sketch M-2.2 for additional information.

REVISE Part plan has been revised to include the sidewalk leading to the entry of building 300. Refer to sketch M-2.3 for additional information.

QUESTIONS:

ITEM NO. 18:

QUESTION On drawing M-2.1, note 7 says 2" polypropylene vent to chemical storage cabinet. Should this be referencing the fume hoods? Please verify exactly what this note should reference and the type of material.

ANSWER No it's for the storage cabinets in the chemical storage room. Polypropylene is the material of pipe available by plastic pipe manufacturers, typically for acid waste systems.

ITEM NO. 19:

QUESTION 084313-1.5-C.1 & 084413-1.6-C.1 – Is it required to have the storefront / curtain wall shop drawings "prepared by the manufacturer"? Typically, we self-perform the shop drawings and submit to a Maryland licensed PE for review, sign and seal.
The problems that I see occurring are:

a. Some manufacturers will not provide in house shop drawing services for a project this size.
b. Having the shop drawings prepared by the manufacturer extends submittal lead-times and can significantly increase the cost.

ANSWER Shop drawings don't have to be prepared by the storefront / curtainwall manufacturer provided they are drawn to scale, drawn in CAD, are complete with all details and conditions included, and approved by the manufacturer.

ITEM NO. 20:

QUESTION 088000-2.3-D.4 – Glass type 'G-2' is called to have a colored interlayer. Can you please specify the color to be used? In past experiences, different colors incur different costs.

ANSWER The interlayer is to be translucent white as noted in the 'Glass Type Key' on sheets A-3.4 & A-3.5.

ITEM NO. 21:

QUESTION ARK Systems is a Lenel authorized VAR and a provider of access control solutions to Garrett College. Please add ARK Systems as an approved vendor under Section 28 13 00 – 2.4H.

ANSWER ARK Systems will be added as an equal.

ITEM NO. 22:

QUESTION "Application software shall be General Electric Secure Perfect Version 6 or higher". GE Security was purchased by Lenel. The manufacturer states that the Secure Perfect software package is obsolete and cannot be expanded. Please confirm the software package currently in use.

Please specify if the existing package is capable of supporting the additional readers and clients.

ANSWER Software package currently in use is Lenel OnGuard. Sections 2.1 and 2.2 in spec section 28 13 00 will be deleted.

The existing package is capable of supporting the additional readers and clients.

ITEM NO. 23:

QUESTION I was wondering if there is a specification for the glass canopy. I could not locate it in either division 8 or 10.

ANSWER There is not a separate specification section for the glass canopy. Information about the glass for the glass canopy is located in section 088000-2.2-E. Information about the glass supporting fittings is located in section 088000-2.3-E. Information about the structural steel for the glass canopy is located in section 051213. See item number 1 of this addendum for additional information regarding the glass canopy.

ITEM NO. 24:

QUESTION What is the mounting height for the short throw projectors?

ANSWER The short throw projectors are to be mounted 8'-8" A.F.F. – Refer to manufacturer's installation instructions for additional information.

ITEM NO. 25:

QUESTION 084313-2.3-B -- What stile of aluminum door is required? (narrow, medium, wide)

ANSWER Wide stiles are to be provided.

ITEM NO. 26:

QUESTION 084313-1.5-D – States to provide data based on the impact of the "frame mounted sunshades"; however I do not see any sunshades present on this project. Please confirm.

ANSWER There are no sunshades in this project.

ITEM NO. 27:

QUESTION WALL SECTION A11 / A4.2 – Depicts a curtain wall mid-span anchor tied off to the steel 'I' beam above the gyp board ceiling. With this anchor being oriented towards the top of the elevation, it will not carry the maximum windload. Can we mid-span anchor at the lower tube steel (in addition to, or in lieu of) the top anchor? (It would be hidden to the exterior by the 'G2' glazing.)

ANSWER Yes. The condition for the mid-span anchor at the lower tube steel is shown in structural detail F/S-5.1.

ITEM NO. 28:

QUESTION Drawing S1.1 shows "remove existing toping slab coat to original slab depth. Level over with Ardex SD-P and Ardex Feather Finish)

- What is the depth of the topping slab to be removed?

ANSWER It is unknown if there even is a topping slab. The contractor shall remove whatever was used to build up this area.

ITEM NO. 29:

QUESTION What thickness will the Ardex be installed?

ANSWER This information was provided in Addendum #1.

END OF ADDENDUM NUMBER 2 NARRATIVE
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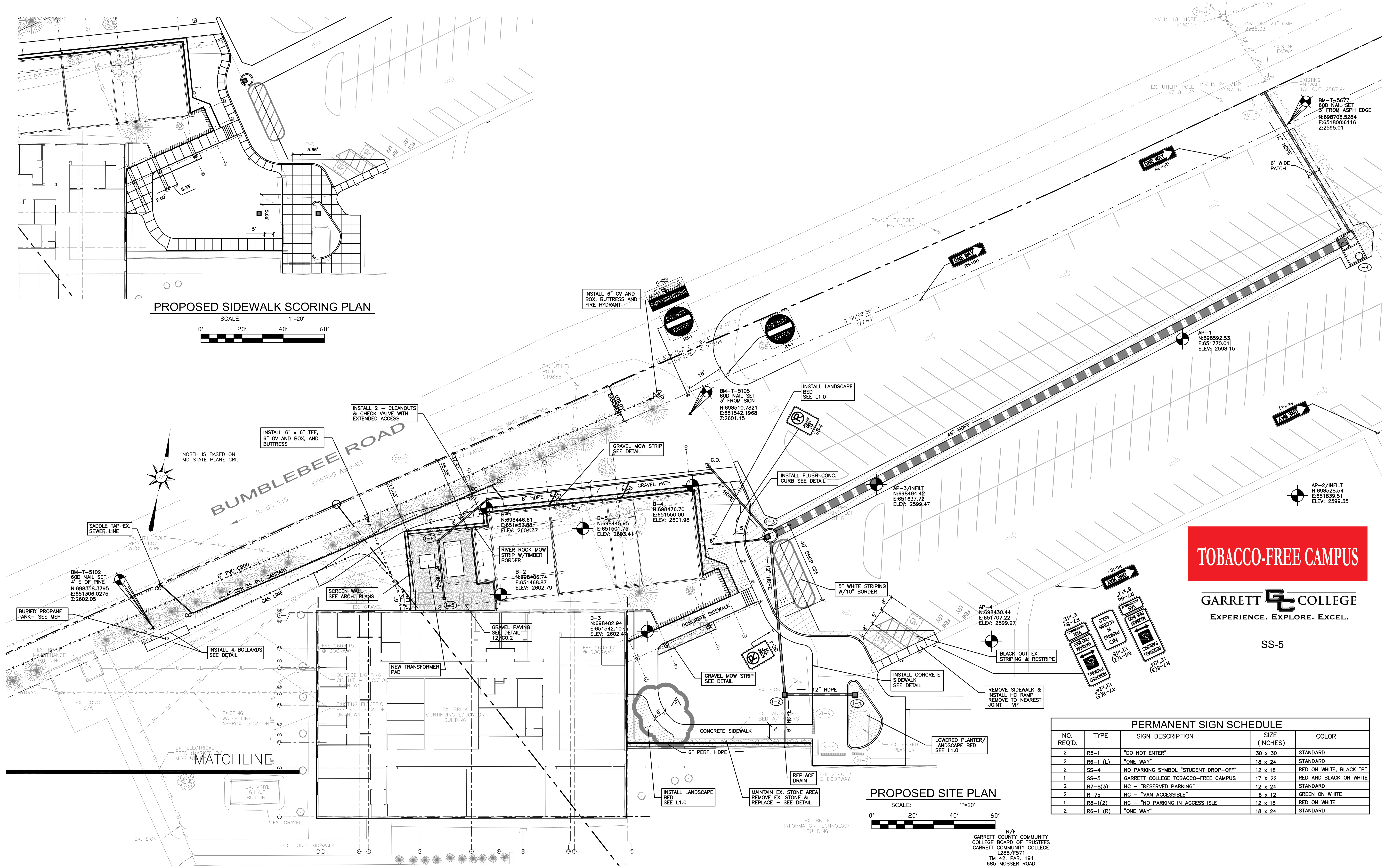

PERMANENT SIGN SCHEDULE

NO. REQ'D.	TYPE	SIGN DESCRIPTION	SIZE (INCHES)	COLOR
2	R5–1	"DO NOT ENTER"	30 x 30	STANDARD
2	R6–1 (L)	"ONE WAY"	18 x 24	STANDARD
2	SS–4	NO PARKING SYMBOL "STUDENT DROP–OFF"	12 x 18	RED ON WHITE, BLACK "P"
1	SS–5	GARRETT COLLEGE TOBACCO–FREE CAMPUS	17 X 22	RED AND BLACK ON WHITE
2	R7–8(3)	HC – "RESERVED PARKING"	12 x 24	STANDARD
2	R–7a	HC – "VAN ACCESSIBLE"	6 x 12	GREEN ON WHITE
1	R8–1(2)	HC – "NO PARKING IN ACCESS ISLE	12 x 18	RED ON WHITE
2	R6–1 (R)	"ONE WAY"	18 x 24	STANDARD

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301.777.2510 FAX: 301.777.8419
SPECS PROJECT NO. 4671

PROFESSIONAL CERTIFICATION. I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 200457, EXPIRATION DATE: SEPTEMBER 2, 2017.

RAYMOND CHARLES RASE — STATE OF MARYLAND — NO. 200457 — PROFESSIONAL ENGINEERS

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GP# 21620

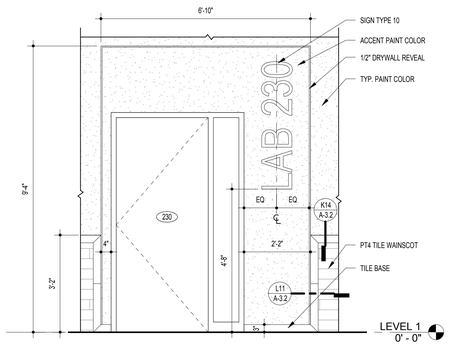
PROPOSED SITE PLAN

GARRETT COLLEGE STEM RENOVATION AND ADDITION
McHENRY, MD

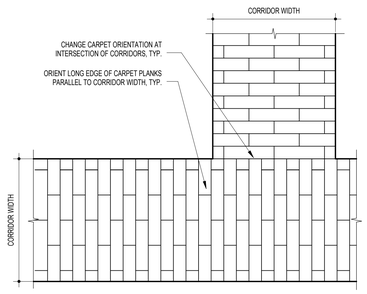
DATE	DESCRIPTION
02/08/17	⚠1 ADDENDUM #1
02/17/17	⚠2 ADDENDUM #2

C2.0

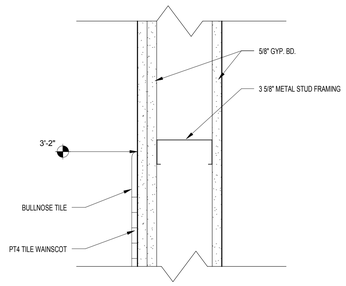
02.01.2017
BID SET



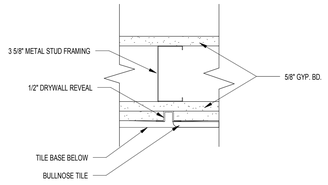
K18 ENLARGED ELEVATION @ LAB DOORS
1/2" = 1'-0"



G18 CORRIDOR CARPET PATTERN
1/4" = 1'-0"



K14 LOBBY WAINSCOT SECTION DETAIL
3" = 1'-0"



L11 LOBBY WAINSCOT PLAN DETAIL
3" = 1'-0"

A17 FLOOR FINISH PLAN
1/8" = 1'-0"

TYPICAL FINISHES

SPACES NOT LISTED ON THE SCHEDULE SHALL HAVE THE TYPICAL FINISHES LISTED BELOW:

FLOORS: CPT
BASE: RST
WALLS: PTD
CEILING: APC

GYP. BD. ABOVE H.M. FRAMES AS INDICATED ON SECTIONS. DETAILS TO RECEIVE SAME TOP COATS AS ADJACENT WALLS UNLESS OTHERWISE NOTED.

FINISH MATERIALS

FLOORS

CONC	CONCRETE WITH HARDENER
CPT	CARPET
PT	PORCELAIN TILE
VCT	VINYL COMPOSITION TILE
WM	WALK-OFF MAT

BASES

NONE	NO BASE
RST	RESILIENT BASE
PT	PORCELAIN TILE

CEILINGS

APC1	COLORED ACOUSTIC PANEL CLG. - 2'X2'
APC2	ACOUSTIC PANEL CLG. - 2'X2'
EXP	EXPOSED CONSTRUCTION - PAINTED
PTD	PAINTED GYPSUM BOARD ON CMU

WALLS

CMU	UNPAINTED C.M.U.
PTD	PAINTED

WALL KEY

WALLS ON FINISH SCHEDULE ARE DENOTED THUS:

A
D A-X.X. B
C

TYPICAL UNLESS OTHERWISE NOTED.

TYPICAL NOTES

1. REFER TO FLOOR PLANS, CEILING PLANS, INTERIOR ELEVATIONS, SECTIONS AND DETAILS FOR ADDITIONAL INFORMATION AND EXTENT OF EACH FINISH WHEN MORE THAN ONE FINISH IS INDICATED FOR ANY SPACE.
2. SEE CEILING PLANS FOR HEIGHTS OF CEILINGS AND LOCATIONS AND HEIGHTS OF BULKHEADS, SOFFITS, ETC.
3. PAINT ALL EXPOSED STEEL LADDERS, LINTELS, HUNG PLATES, HAND AND GUARD RAILS, STAIRS AND STRINGERS.
4. PAINT ALL EXPOSED STEEL COLUMNS, TRUSSES, JOISTS, BEAMS, DECK, AND MISCELLANEOUS BRIDGING, ANGLES, PLATES, ETC.
5. INSTALL PORCELAIN TILE COVE BASE FLUSH WITH FLOOR TILE AND FLUSH WITH PORCELAIN WALL TILE.
6. FIELD PAINT ALL EXPOSED, NON-FACTORY FINISHED STRUCTURAL, MECHANICAL, OR ELECTRICAL COMPONENTS.
7. PROVIDE SEALANT AT INTERSECTIONS OF DISSIMILAR MATERIALS, COMPLYING WITH SPECIFICATIONS.
8. REFER TO INTERIOR ELEVATIONS AND SECTIONS FOR ADDITIONAL FINISH INFORMATION. PROVIDE ALL FINISH MATERIALS SHOWN IN PLANS, ELEVATIONS OR SECTIONS AS NOTED OR DEPICTED ON THE DRAWINGS AND SPECIFICATIONS.
9. BRING CONFLICTS TO THE ARCHITECTS ATTENTION DURING THE BIDDING PERIOD FOR CLARIFICATION.
10. WALL AND CEILING FINISHES SHALL INCLUDE ALL PROJECTIONS, BEAM ENCLOSURES, RECESSES, BULKHEADS, MATERIAL CHANGES, OR OTHER ENCLOSURES.
11. ELECTRICAL OUTLETS, CLOCKS, P.A. SPEAKERS OR OTHER DEVICES SHOWN ON THE ARCHITECTURAL DRAWINGS SERVE TO CALL ATTENTION TO THE PRESENCE OF SUCH DEVICES. NOT ALL DEVICES MAY BE SHOWN ON ARCHITECTURAL DRAWINGS. CONSULT THE OTHER DRAWINGS FOR FURTHER INFORMATION AND ADVISE ARCHITECT OF ANY CONFLICT OF LOCATION OR TYPE OF DEVICES SHOWN. COORDINATE ALL WORK, FINISHES AND DEVICES.
12. PROVIDE MOISTURE RESISTANT GYPSUM BOARD AT TOILET ROOMS, & SERVICE CLOSETS FOR WALLS DESIGNATED AS GYPSUM BOARD WALL TYPES. PROVIDE TILE BACKER BOARD AT WALLS DESIGNATED AS GYPSUM BOARD WALL TYPES WITH TILE FINISH.
13. FIELD PAINT ELECTRICAL PANELS EXCEPT PANELS LOCATED IN ELECTRICAL CLOSETS AND MECHANICAL ROOMS.
14. BRING CONFLICTS BETWEEN THE FINISH SCHEDULE AND MATERIALS SHOWN ON OTHER DRAWINGS (AND/OR SPECIFICATIONS) TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY. IF A CONFLICT EXISTS IN BETWEEN DRAWINGS (AND/OR SPECIFICATIONS), THE MORE STRINGENT AND MORE COSTLY REQUIREMENT SHALL APPLY.

FLOOR FINISHES

CONC
CPT1
CPT2
CPT3
PT1
PT2
VCT
WM

2

FINISH SCHEDULE

RM. NO.	NAME	COLOR SCHEME	FLOOR	BASE	WALLS A	WALLS B	WALLS C	WALLS D	CLG. MATL.	REMARKS
200	CORRIDOR		CPT2	RST	PTD	PTD	PTD	PTD	APC2/PTD	
200A	VESTIBULE	2	PT1	RST	PTD	PTD	PTD	PTD	APC2	
201	CLASSROOM		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
202	CLASSROOM		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
203	STUDENT BREAKOUT		CPT3	RST	PTD	PTD	PTD	PTD	PTD	
204	STORAGE		VCT	RST	PTD	PTD	PTD	PTD	APC2	
205	CLASSROOM		VCT	RST	PTD	PTD	PTD	PTD	APC2	
206	CLASSROOM		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
207	RECYC		CONC	RST	PTD	PTD	PTD	PTD	APC2	
208	PART-TIME FACULTY		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
209	CONFERENCE ROOM		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
210A	COPY ROOM		VCT	RST	PTD	PTD	PTD	PTD	APC2	
210B	CLASSROOM STORAGE		VCT	RST	PTD	PTD	PTD	PTD	APC2	
211	WORK ROOM		VCT	RST	PTD	PTD	PTD	PTD	APC2	
212	FACULTY		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
213	FACULTY		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
214	FACULTY		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
215	FACULTY		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
216	FACULTY		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
217	FACULTY MEETING		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
218	FACULTY		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
219	FACULTY		CPT1	RST	PTD	PTD	PTD	PTD	APC2	
220	MEP		CONC	RST	PTD	PTD	PTD	PTD	EXP	
220A	IT		CONC	RST	PTD	PTD	PTD	PTD	EXP	
220B	ELECTRIC		CONC	RST	PTD	PTD	PTD	PTD	EXP	
221	WOMEN		PT2	PT3	PTD	PTD	PTD	PTD	APC2	
222	MEN		PT2	PT3	PTD	PTD	PTD	PTD	APC2	
223	CUSTODIAL		CONC	RST	PTD	PTD	PTD	PTD	EXP	
224	STUDENT BREAKOUT		CPT3	RST	PTD	PTD	PTD	PTD	APC2	
225	PHYSICS/EARTH SCIENCE PREP/STORAGE		VCT	RST	PTD	PTD	PTD	PTD	EXP	
226	PHYSICS/EARTH SCIENCE		VCT	RST	PTD	PTD	PTD	PTD	APC2	
227	CHEMISTRY/MICROBIOLOGY		VCT	RST	PTD	PTD	PTD	PTD	APC2	
228	CHEMICAL STORAGE		VCT	RST	PTD	PTD	PTD	PTD	APC2	
229A	CHEMISTRY/MICROBIOLOGY PREP/STORAGE		VCT	RST	PTD	PTD	PTD	PTD	APC2	
229B	BIOLOGY PREP/STORAGE		VCT	RST	PTD	PTD	PTD	PTD	APC2	
230	BIOLOGY		VCT	RST	PTD	PTD	PTD	PTD	APC2	
231	LOBBY		PT1	PTD	PTD	PTD	PTD	PTD	APC1/PTD	
232	VESTIBULE		WM	PT1	PTD	PTD	PTD	PTD	APC1	
233	LOUNGE		CPT3	RST	PTD	PTD	PTD	PTD	APC2/PTD	
234	VENDING		VCT	RST	PTD	PTD	PTD	PTD	APC2/PTD	
235	ENGINEERING/ROBOTICS STORAGE		VCT	RST	PTD	PTD	PTD	PTD	APC2	
236	ENGINEERING /ROBOTICS		VCT	RST	PTD	PTD	PTD	PTD	APC2	
237	HAZARD		CONC	RST	PTD	PTD	PTD	PTD	EXP	
237A	DISPLAY		VCT	RST	PTD	PTD	PTD	PTD	APC2	
238	STUDENT BREAKOUT		CPT3	RST	PTD	PTD	PTD	PTD	APC2	
239	FAMILY BATHROOM		PT2	PT3	PTD	PTD	PTD	PTD	APC2	
240	STUDENT TUTORING AREA		CPT3	RST	PTD	PTD	PTD	PTD	APC2	
241	MECHANICAL PENTHOUSE		CONC	RST	PTD	PTD	PTD	PTD	EXP	

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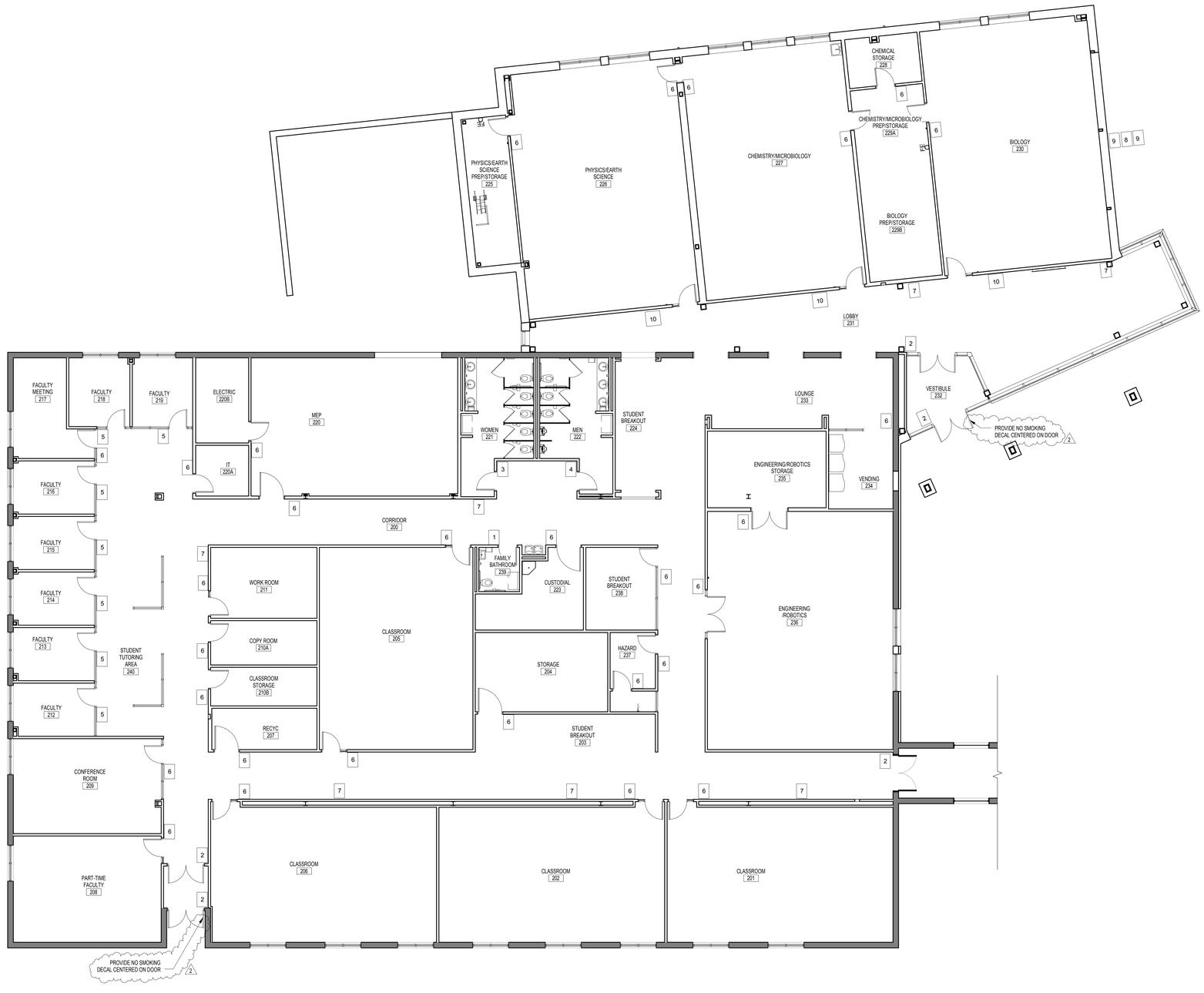
GP #21620

FINISH SCHEDULE AND PLAN
Garrett College STEM Renovation and Addition
McHenry, MD

DATE	DESCRIPTION
2.17.17	Addendum 2

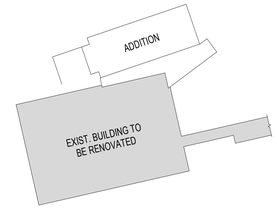
A-3.2
February 1, 2017
Bid Set



B18 SIGNAGE FLOOR PLAN
1/8" = 1'-0"

Scale: 1 inch = 8 feet
0 4' 8' 16' 24' 32'

KEY PLAN



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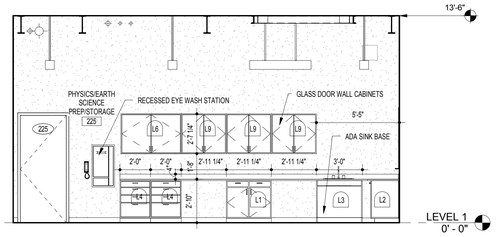
SIGNAGE FLOOR PLAN

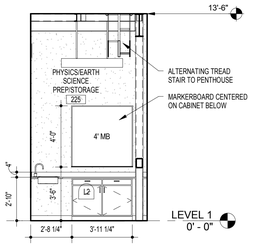
Garrett College STEM Renovation and Addition
McHenry, MD

DATE	DESCRIPTION
2.17.17	Addendum 2

A-5.2
February 1, 2017
Bid Set



1 PHYSICS/EARTH SCIENCE PREP/STORAGE 225 - EAST
1/4" = 1'-0"



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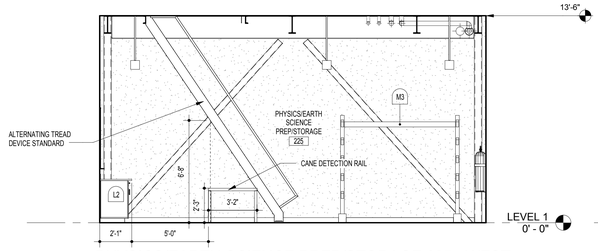

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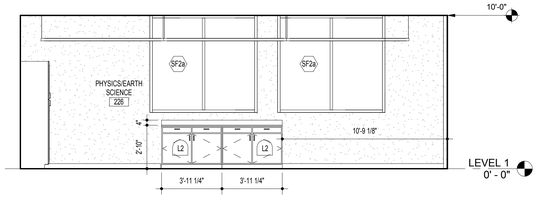

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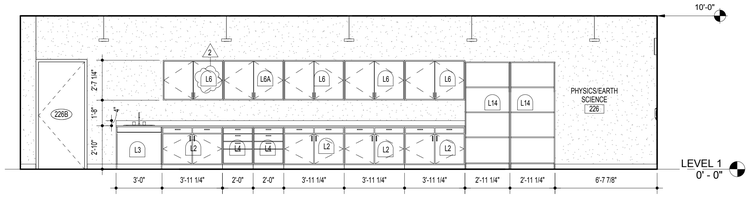

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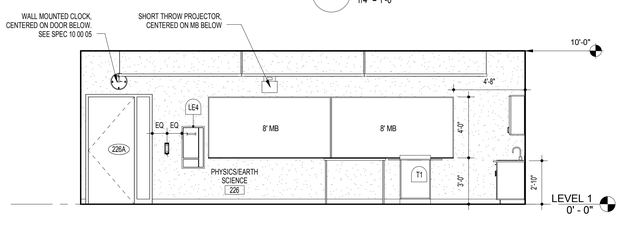

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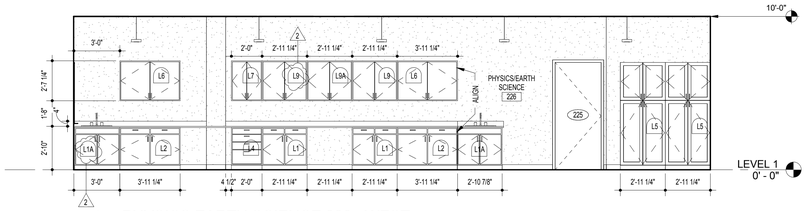
1/4" = 1'-0"



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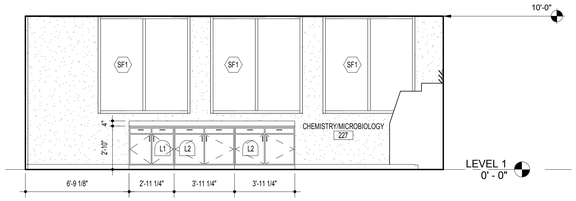
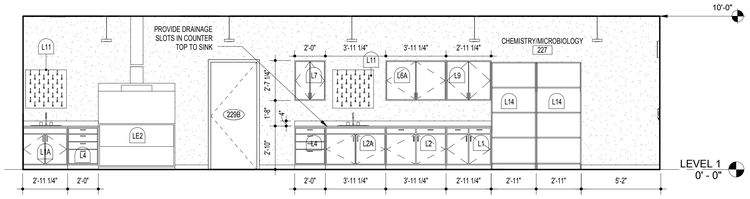
1/4" = 1'-0"



8 CHEMISTRY/MICROBIOLOGY 227 - NORTH
1/4" = 1'-0"



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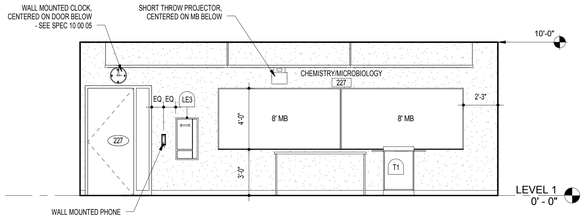

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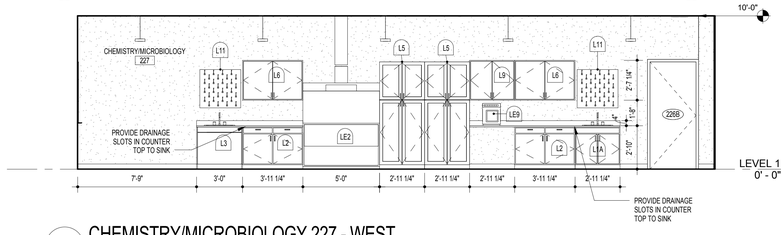
1/4" = 1'-0"



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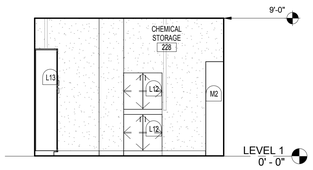
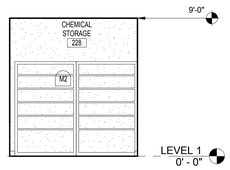
1/4" = 1'-0"



12 CHEMICAL STORAGE 228 - NORTH
1/4" = 1'-0"



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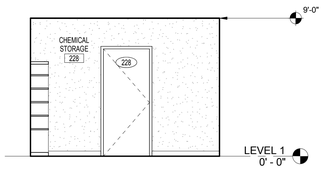
1/4" = 1'-0"



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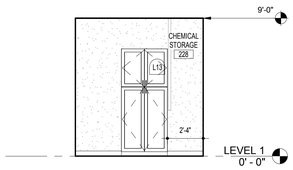

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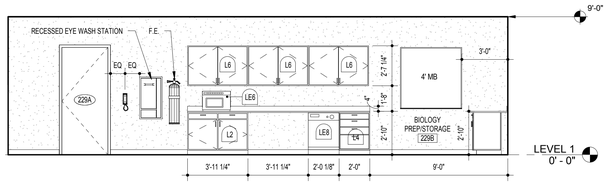
1/4" = 1'-0"



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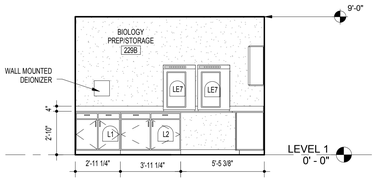
1/4" = 1'-0"



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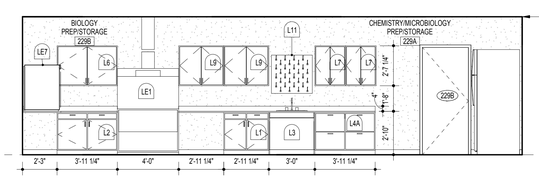
1/4" = 1'-0"



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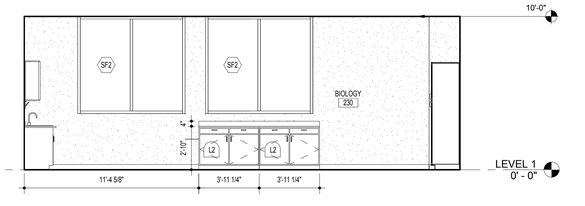
1/4" = 1'-0"



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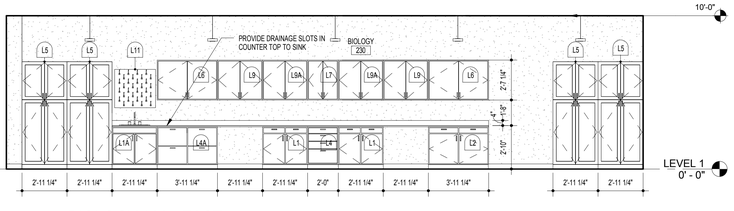
1/4" = 1'-0"



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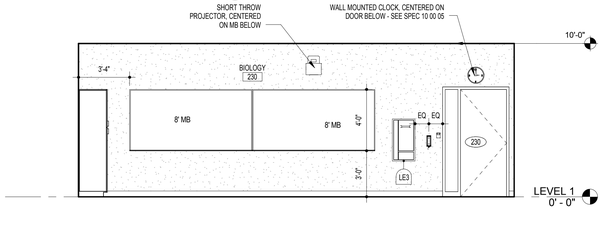

21 BIOLOGY 230 - SOUTH
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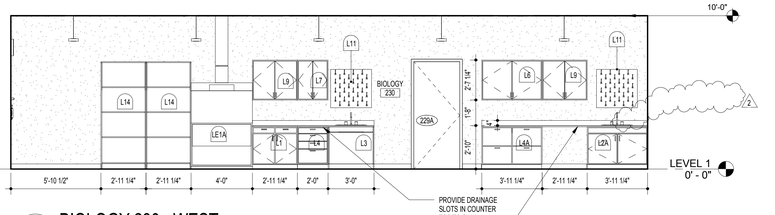

22 BIOLOGY 230 - WEST
1/4" = 1'-0"

Scale: 1 inch = 4 feet
0 2' 4' 8' 12' 16'

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GP #21620

INTERIOR ELEVATIONS

Garrett College STEM Renovation and Addition
McHenry, MD

DATE	DESCRIPTION
2.17.17	Addendum 2

A-6.1
February 1, 2017
Bid Set

CASEWORK AND EQUIPMENT SCHEDULE

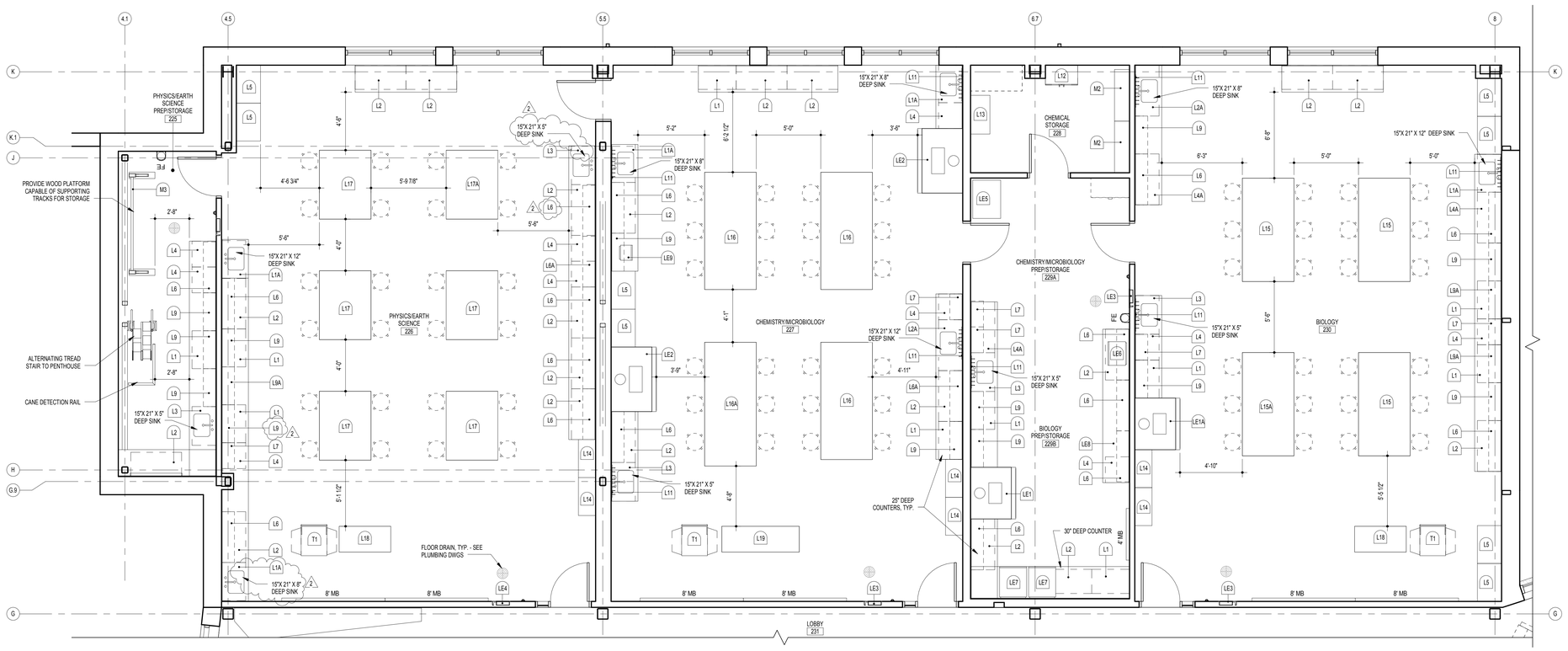
W	DESCRIPTION	SIZE (INCHES) W	D	H	MANUF.	MODEL #	REMARKS
D1	DISPLAY CASE	70 1/2"	18"	100 1/4"	HELMUT GUENSCHEL	ACCESSION	SEE SPEC 10 00 05
EX1	EXISTING WORK BENCH	72"	28"	30"	EXIST.	EXIST.	TO BE RELOCATED BY GC
EX2	EXISTING TALL STORAGE CABINETS	24"	24"	84"	EXIST.	EXIST.	TO BE RELOCATED BY GC
EX3	EXISTING METAL SHELVING	36"	24"	72"	EXIST.	EXIST.	TO BE RELOCATED BY GC
EX4	EXISTING METAL SHELVING	60"	24"	78"	EXIST.	EXIST.	TO BE RELOCATED BY GC
EX5	EXISTING WORK TABLE	60"	28"	39"	EXIST.	EXIST.	TO BE RELOCATED BY GC
G1	BASE CABINET	36"	21"	32"	STEVENS ADVANTAGE	10432	
G2	BASE CABINET	15"	21"	29"	STEVENS ADVANTAGE	10370	
G3	ADA SINK BASE	36"	21"	33 1/4"	STEVENS ADVANTAGE	10511	
G4	WALL CABINET	36"	14"	30"	STEVENS ADVANTAGE	15129	
G5	BASE CABINET	36"	21"	29"	STEVENS ADVANTAGE	10432	
G6	BASE CABINET	33"	21"	32"	STEVENS ADVANTAGE	10432	
G7	BASE CABINET	33"	21"	29"	STEVENS ADVANTAGE	10432	
L1	BASE CABINET	35 1/4"	22 1/2"	33"	CAMPBELL RHEA	3687D	
L1A	SINK BASE CABINET	35 1/4"	22 1/2"	33"	CAMPBELL RHEA	3755D	
L2	BASE CABINET	47 1/4"	22 1/2"	33"	CAMPBELL RHEA	3687F	
L2A	SINK BASE CABINET	47 1/4"	22 1/2"	33"	CAMPBELL RHEA	3755F	
L3	ADA SINK BASE	36"	22 1/2"	34 1/4"	CAMPBELL RHEA	8760	POINT-OF-USE ACID NEUTRALIZATION BOTTLE TRAPS LOCATED IN ADJACENT CABINET
L4	BASE CABINET WITH DRAWERS	24"	22 1/2"	33"	CAMPBELL RHEA	3618	
L4A	BASE CABINET WITH DRAWERS	47 1/4"	22 1/2"	33"	CAMPBELL RHEA	3726F-M	SEE A-9.3
L5	TALL CABINET	35 1/4"	22 1/2"	84"	CAMPBELL RHEA	5724	
L6	WALL CABINET	47 1/4"	12"	31 1/4"	CAMPBELL RHEA	4722	
L6A	WALL CABINET WITH GLASS DOORS	47 1/4"	12"	31 1/4"	CAMPBELL RHEA	4794	
L7	WALL CABINET	24"	12"	31 1/4"	CAMPBELL RHEA	4712	
L9	WALL CABINET	35 1/4"	12"	31 1/4"	CAMPBELL RHEA	4718	
L9A	WALL CABINET WITH GLASS DOORS	35 1/4"	12"	31 1/4"	CAMPBELL RHEA	4790	
L10	WORK BENCH	48"	30"	30"	ULINE	H-1128-WOOD	
L11	DRYING RACK	32"	1"	30"	CAMPBELL RHEA	6664	
L12	FLAMMABLE STORAGE CABINET - STACKABLE	30"	18 1/2"	32 1/2"	CAMPBELL RHEA	8615	STACKED
L13	ACID/CORROSIVE STORAGE CABINET	36"	18"	84"	CAMPBELL RHEA	8638	
L14	STUDENT STORAGE	35 1/4"	16"	84"	CAMPBELL RHEA	5650	
L15	LAB STUDENT TABLE	96"	48"	36"	CAMPBELL RHEA	CUSTOM TABLE	SEE A-9.3
L15A	LAB STUDENT TABLE - ADA	96"	48"	34"	CAMPBELL RHEA	CUSTOM TABLE	SEE A-9.3
L16	LAB STUDENT TABLE	109"	48"	36"	CAMPBELL RHEA	CUSTOM TABLE	SEE A-9.3
L16A	LAB STUDENT TABLE - ADA	115"	48"	34"	CAMPBELL RHEA	CUSTOM TABLE	SEE A-9.3
L17	LAB STUDENT TABLE	64"	48"	36"	CAMPBELL RHEA	CUSTOM TABLE	SEE A-9.3
L17A	LAB STUDENT TABLE - ADA	64"	48"	34"	CAMPBELL RHEA	CUSTOM TABLE	SEE A-9.3
L18	MOBILE INSTRUCTOR'S DESKS	48"	24"	35 3/4"	CAMPBELL RHEA	7700	
L19	INSTRUCTOR'S DEMONSTRATION TABLE	72"	24"	34"	CAMPBELL RHEA	6012-H	PROVIDE GAS, WATER, & VACUUM
L20A	OPEN FRAME TABLE	48"	24"	30"	CAMPBELL RHEA	6502	
L20B	OPEN FRAME TABLE	72"	30"	30"	CAMPBELL RHEA	6512	
LE1	FUME HOOD	48"	33 1/4"	93 1/4"	CAMPBELL RHEA	8796	SEE A-9.3 - BARRIER FREE; PROVIDE GAS, WATER, & VACUUM
LE1A	FUME HOOD	48"	33 1/4"	93 1/4"	CAMPBELL RHEA	8796	SEE A-9.3 - BARRIER FREE; PROVIDE VENTILATION ONLY
LE2	FUME HOOD	60"	33"	93 1/4"	CAMPBELL RHEA	8798	SEE A-9.3 - BARRIER FREE; PROVIDE GAS, WATER, & VACUUM
LE3	CONCEALED EYE WASH AND DRENCH SHOWER				BRADLEY	S19345HXB	
LE4	CONCEALED EYE WASH				BRADLEY	S19294HB	
LE5	REFRIGERATOR/ FREEZER	26"	35 1/2"	82 5/16"	THERMOFISHER SCIENTIFIC	MC20SS-SAEE-TS	N.I.C - PROVIDED BY OWNER
LE6	AUTOCLAVE	22"	17 1/2"	15 11/16"	BENCHMARK SCIENTIFIC	BIOCLAVE 16 B4000-16	N.I.C - PROVIDED BY OWNER
LE7	INCUBATOR	25 3/16"	29 1/8"	36 3/16"	THERMOFISHER SCIENTIFIC	51028068	N.I.C - PROVIDED BY OWNER
LE8	GLASSWARE WASHER	24 1/8"	27 3/8"	32 7/8"	LABCONCO	4578020	N.I.C - PROVIDED BY OWNER
LE9	DRYING OVEN	14"	12"	17 1/2"	FISHER SCIENTIFIC	S50171	N.I.C - PROVIDED BY OWNER
M1	METAL SHELVING	36"	18"	72"	ULINE	H-3911	
M2	METAL SHELVING	48"	14"	74"	EAGLE GROUP	SS1448G	
M3	BRACE SET COLUMN RACK	96"	24"	84"	JARKE	7366900	
T1	TECHNOLOGY PODIUM	24"	28 3/4"	36 1/2"	SPECTRUM INDUSTRIES	55411-FM-FM-B-36-S1-0-4-TK-0-1-0-1	SEE SPEC 10 00 05
T2	MOD KREATIONS D-SHAPE TABLE	72"	42"	30"	PALMIER	SO-MOD-T	N.I.C - PROVIDED BY OWNER

GENERAL FURNISHING AND EQUIPMENT NOTES

NOTE: NOT ALL ITEMS INDICATED ON SCHEDULE ARE REPRESENTED IN THIS PROJECT.

1. ALL CABINET HEIGHTS INCLUDE COUNTERTOPS. DIMENSIONS ARE TO THE NEAREST INCH.
2. DIVISIONS IN CASEWORK ARE SHOWN FOR CLARITY AND DO NOT REPRESENT BREAKS IN THE COUNTERTOP.
3. PROVIDE CONTINUOUS COUNTERTOP OVER ALL SIMILAR HEIGHT CASEWORK, UNLESS OTHERWISE NOTED.
4. MANUFACTURER AND CATALOG NUMBERS ARE FOR REFERENCE AND ILLUSTRATION PURPOSES ONLY. SEE SPECIFICATION FOR FULL CASEWORK REQUIREMENTS.
5. PROVIDE RESILIENT BASE FOR ALL CASEWORK THAT MEETS THE FLOOR ON FRONT AND EXPOSED SIDES AND BACK.
6. DOTTED LINES INDICATE WALL HUNG CABINETS. DIVISIONS OF BASE CABINETS BELOW THE COUNTERTOP, FURNITURE NOT IN THE CONTRACT OR PROJECTION SCREENS -SEE CASEWORK KEY AND SPECIFICATIONS.
7. ALL CABINETS AND DRAWERS TO HAVE CAM LOCKS EXCEPT FOR SINK BASE CABINETS.
8. ALL EXPOSED SURFACES (EXPOSED TO VIEW FROM ANY PERSPECTIVE) TO BE COVERED WITH LAMINATE.
9. ALL CASEWORK WHICH MEETS A WALL AT ONE OR BOTH ENDS, TO BE PROVIDED WITH FILLER PANELS AND SCRIBED TO THE WALL(S) AS REQUIRED.
10. ALL CABINETS AND DRAWERS IN THE KINDERGARTEN ROOMS TO BE PROVIDED WITH RECESSED HANDLES.
11. ALL COUNTERTOP CORNERS SHALL BE 1/2" RADIUSED UNLESS OTHERWISE NOTED.
12. PROVIDE ADEQUATE BLOCKING IN STUD WALLS AND AT CMU WALLS FOR WALL-MOUNTED EQUIPMENT AND FURNISHINGS.
13. CONTRACTOR TO FIELD VERIFY ALL CLEAR OPENINGS PRIOR TO MILLWORK OR CASEWORK FABRICATION.
14. MILLWORK AND CASEWORK DRAWINGS ARE DIAGRAMMATIC IN NATURE TO SHOW DESIGN INTENT. ALL WORK TO BE DONE IN ACCORDANCE WITH SPECIFICATIONS. CONSTRUCTION DETAILS ARE TO BE SUBMITTED IN SHOP DRAWINGS AND ARE SUBJECT TO THE APPROVAL OF THE ARCHITECT.

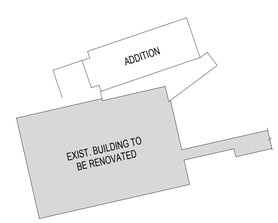
LEGEND:
MB: MARKER BOARD
TB: TACK BOARD



A18 FIRST FLOOR LAB PLAN
1/4" = 1'-0"

Scale: 1 inch = 4 feet
0 2' 4' 8' 12' 16'

KEY PLAN



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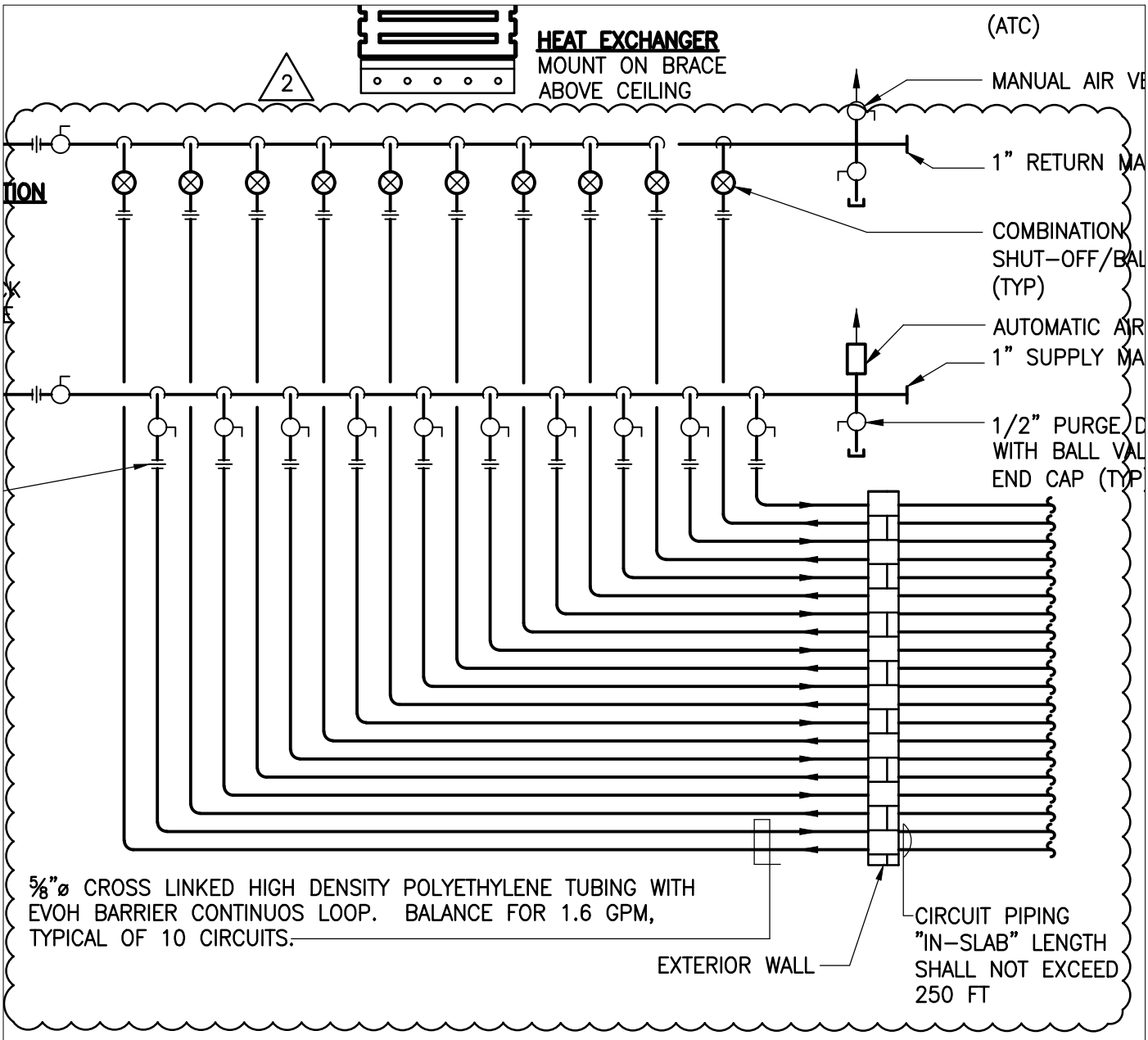
GP #21620

ENLARGED LAB PLANS

Garrett College STEM Renovation and Addition
McHenry, MD

DATE	DESCRIPTION
2.17.17	Addendum 2

A-9.2
February 1, 2017
Bid Set



HYDRONIC SNOW MELT PIPING DETAIL

SCALE: NOT TO SCALE

Garrett College STEM Addition & Renovation		DATE	ADD
REF - M-7.4 - MECHANICAL DETAILS	SCALE: NONE	02/17/17	M-2.1

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DESIGN NOTES:

1. HYDRONIC SNOW MELTING SLAB SHALL CONSIST OF RAMPS AND LANDINGS AS OUTLINED/SHOWN. REFER TO ARCHITECTURAL DRAWINGS AND DETAILS FOR ADDITIONAL INFORMATION ON RAMP AND LANDING CONSTRUCTION. THE MANUFACTURER SHALL CONFIRM ALL EQUIPMENT CAPACITY BASED ON AREA SERVED.

2. DESIGN AND INSTALL CIRCUIT PIPING PER MANUFACTURERS (VIEGA) RECOMMENDATIONS.

3. DESIGN PARAMETERS:

   VIEGA SYSTEM: DESIGN LEVEL TYPE II
   TOTAL SNOW MELT AREA: APROX. 1,460 FT^2
   UNIT HEAT LOAD: 200 $BTUH/FT^2$
   WATER TEMPERATURE: 130 °F
   AVG. SPACING: 9 IN.

2

PLATE AND FRAME HEAT EXCHANGER

292,000 BTUH HEAT TRANSFER
PROPYLENE GLYCOL (40%) – COLD SIDE
- 15.8 GPM FLOW RATE
- 0.94 BTU/LB °F – SPECIFIC HEAT
- 1.03 SPECIFIC GRAVITY
- 0.28 BTU/HR FT °F – THERMAL CONDUCTIVITY
- 1.26 CPS @ AVG. TEMPERATURE – VISCOSITY
- 90°F INLET WATER TEMPERATURE
- 130°F OUTLET WATER TEMPERATURE
- 5 FT. OF HEAD MAX. WPD
- 15 CHANNELS, 0.49 FT/SEC

HEATING WATER – HOT SIDE
- 29.6 GPM FLOW RATE
- 1.00 BTU/LB °F – SPECIFIC HEAT
- 1.00 SPECIFIC GRAVITY
- 0.38 BTU/HR FT °F – THERMAL CONDUCTIVITY
- 0.93 CP @ AVG. TEMPERATURE – VISCOSITY
- 140°F INLET WATER TEMPERATURE
- 120°F OUTLET WATER TEMPERATURE
- 10.3 FT. OF HEAD MAX. WPD
- 14 CHANNELS, 0.98 FT/SEC

MANUFACTURER: VIEGA HEAT EXCHANGER

2

INJECTION PUMP

17 GPM, 30' HD
115V/1ø/60Hz
3/4 HP
BRONZE CONSTRUCTION
SELECTION BASED ON TACO IL133

HYDRONIC SNOW MELT NOTES

SCALE: NOT TO SCALE

Garrett College STEM Addition & Renovation		DATE	ADD
REF - M-7.4 - MECHANICAL DETAILS	SCALE: NONE	02/17/17	M-2.2

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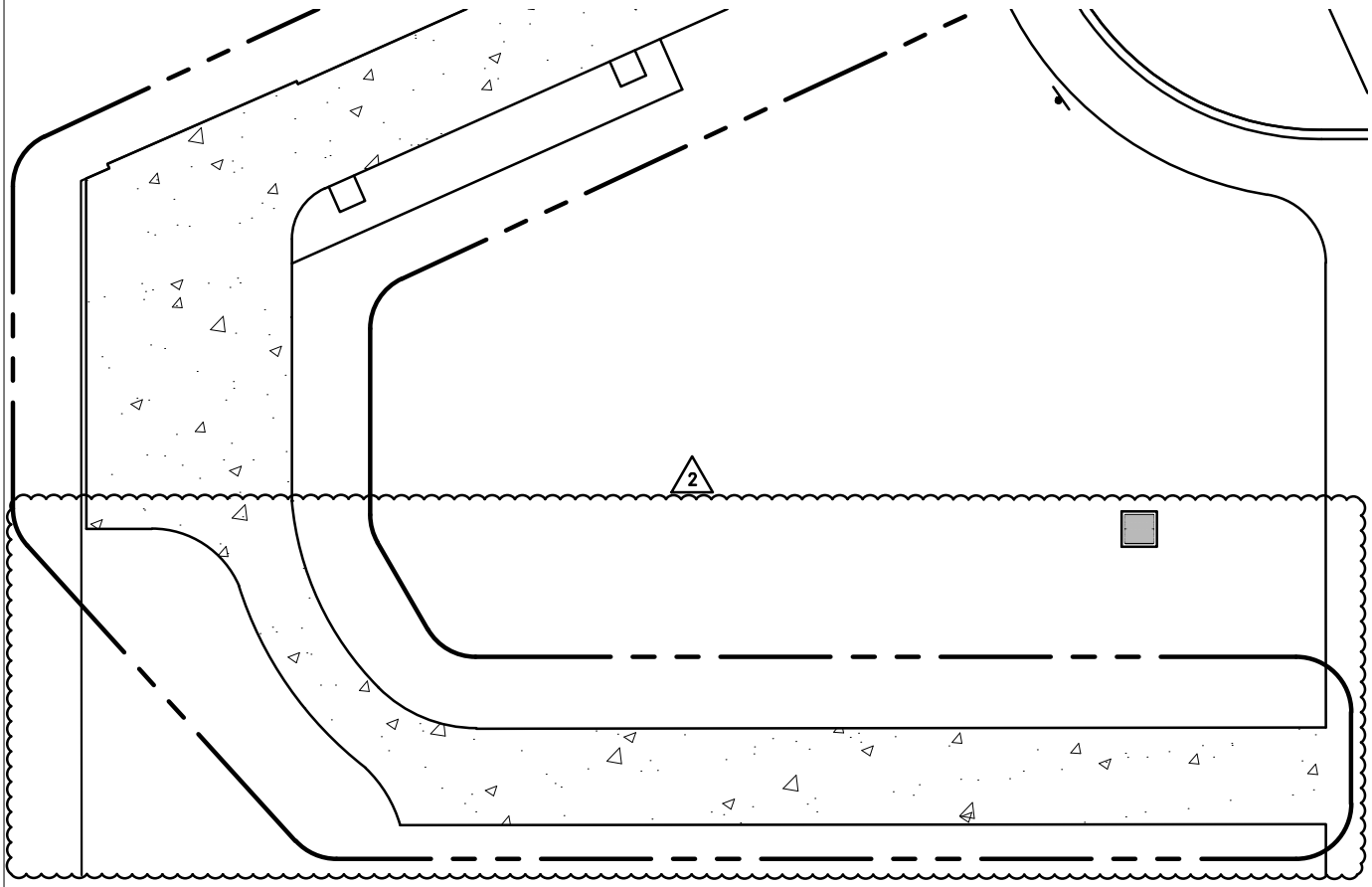

HYDRONIC HEAT SNOW MELTING PART PLAN

SCALE: NOT TO SCALE

Garrett College STEM Addition & Renovation		DATE	ADD
REF - M-7.4 - MECHANICAL DETAILS	SCALE: NONE	02/17/17	M-2.3

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