

September 28, 2023

Whiteland Community High School Phase 1 300 E. Main Street Whiteland, IN 46184

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated August 11, 2023, by Lancer Associates Architecture. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 3-1 through ADD 3-2, Specification Section 00 31 00 – Indiana Bid Form, Specification Section 01 21 00 Allowances, and Specification Section 01 23 00 – Alternates, Architects Addendum No. 3, consisting of 11 pages, Specification Section 03 37 00 Stained and Sealed Concrete Floors, Crossroads Engineers Narrative, 301, 302, 400, 500, 501, 1000, LS001, LS002, LS002, L601, S102AGH, A503, A504, A505, A731, Primary Engineering Narrative, P002, P100M, P101AGH, P101M, P403, P501, P504, E201M, E601, E701, E705, Design27 Narrative.

A. <u>GENERAL NOTE- PRE-AWARD MEETING SCHEDULE</u>

Bid Category No. 01 - General Trades – 10/10/23 @ 8AM Bid Category No. 02 – Masonry – 10/10/23 @ 9AM Bid Category No. 03 – Structural Steel/Misc Metals – 10/10/23 @ 10AM Bid Category No. 04 – Roofing – 10/10/23 @ 11AM Bid Category No. 05 – Metal Studs, Drywall & Acoustical – 10/10/23 @ 1PM Bid Category No. 06 – Curtainwall, Storefront & Glazing – 10/10/23 @ 2PM Bid Category No. 07 – Casework/Millwork – 10/10/23 @ 3PM Bid Category No. 08 – Flooring – 10/11/23 @ 10AM Bid Category No. 09 – Epoxy Terrazzo – 10/11/23 @ 11AM Bid Category No. 10 – Painting – 10/11/23 @ 11AM Bid Category No. 11 – Aquatic Construction – 10/11/23 @ 2PM Bid Category No. 12 – Fire Protection – 10/11/23 @ 3PM Bid Category No. 13 – Plumbing – 10/12/23 @ 8AM Bid Category No. 14 – HVAC – 10/12/23 @ 9AM Bid Category No. 15 – Electrical & Technology – 10/12/23 @ 10AM

B. SPECIFICATION SECTION 00 31 00 BID FORM

1. DELETE in its entirety of this specification section and replace with 00 31 00 – BID FORM section included as part of this Addendum.

C. <u>SPECIFICATION SECTION 01 12 00 - MULTIPLE CONTRACT SUMMARY</u>

A. BID CATEGORY NO. 1 – GENERAL TRADES

Add the following specification section:

03 37 00 Stained and Sealed Concrete Floors

Add the following Clarification:

20. Bid Category No. 1 – General Trades Contractor is to provide and install all Gypcrete topping required by the contract documents.

C. BID CATEGORY NO. 5 – METAL STUDS, DRYWALL, AND ACOUSTICAL

Add the following clarifications:

- **9.** Bid Category No. 5 Metal Studs, Drywall, and Acoustical Contractor is responsible to provide and install all required wood blocking around windows and storefronts.
- Bid Category No. 5 Metal Studs, Drywall, and Acoustical Contractor is responsible for Drawing S102L Note 2 and detail 3/A503 Ramp overbuild framing, sheathing, and insulation. Including the required delegated design. Gypcrete by Bid Category No. 1 Contractor.

I. BID CATEGORY NO. 7 – MILLWORK/CASEWORK

Add the following clarification:

1. Bid Category No. 7 – Millwork/Casework Contractor is responsible for providing and installing the butcherblock countertops.

E. <u>SPECIFICATION SECTION 01 21 00 ALLOWANCES</u>

DELETE in its entirety of this specification section and replace with $01\ 21\ 00 - ALLOWANCES$ section included as part of this Addendum.

D. <u>SPECIFICATION SECTION 01 23 00 – ALTERNATES</u>

DELETE entirety of this specification section and replace with $01\,23\,00 - ALTERNATES$ section included as part of this Addendum.

CONTRACTOR'S BID FOR PUBLIC WORKS FORM NO. 96

Format (Revised 2013) (Amended for CPCSC)

Whiteland Community High School Addition Phase 1: 3-Story and Natatorium Additions

(Clark-Pleasant Community School Corporation)

(Johnson County, Indiana)

PART I

(To be completed for all bids. Please type or print)

Date (month, day, year):_____

BIDDER (Firm)

Address P.O. Box

City/State/Zip_____

 Telephone Number:

 Email Address:

Person to contact regarding this Bid_____

Pursuant to notices given, the undersigned offers to furnish labor and/or materials necessary to complete the public works project of:

Insert Category No. (s) and Name(s)

Of public works project, Whiteland Community High School Addition Phase 1: 3-Story and Natatorium Additions, in accordance with Plans and Specifications prepared by Lancer Associates Architecture, 427 South College Ave., Suite 103, Indianapolis, IN 46203, as follows:

BASE BID

For the sum of

(Sum in words)

_____DOLLARS (\$_____

____)

(Sum in figures)

The undersigned acknowledges receipt of the following Addenda: Receipt of Addenda No. (s)

PROPOSAL TIME

Bidder agrees that this Bid shall remain in force for a period of sixty (60) consecutive calendar days from the due date, and Bids may be accepted or rejected during this period. Bids not accepted within said sixty (60) consecutive calendar days shall be deemed rejected.

Attended pre-bid conferenceYES _____NO_____Has visited the jobsiteYES _____NO_____

The Bidder has reviewed the Guideline Schedule in Section 01 32 00 and the intent Of the schedule can be met. YES _____ NO____

Bidder has included their Written Drug Testing Plan that covers all employees of the bidder who will perform work on the public work project and meets or exceeds the requirements set in IC 4-13-18-5 or IC 4-13-18-6. YES _____ NO____

The Skillman Corporation's diversity initiative is to create a program to encourage, assist and measure the active participation of Minority- Owned, Women-Owned, Veteran – Owned and Disabled Individual-Owned Businesses. The Program is to ensure that MWVDBEs are provided full and equal opportunity to participate in all Skillman Corporation's Projects.

Bidder has included:	DBE: YES	%	NO
	MBE: YES	%	NO
	WBE: YES	%	NO
	VBE: YES	%	NO

The undersigned further agrees to furnish a bond or certified check with this Bid for an amount specified in the Notice to Bidders. If Alternate Bids apply, submit a proposal for each in accordance with the Plans and Specifications.

If additional units of material included in the contract are needed, the cost of units must be the same as that shown in the original contract if accepted by the governmental unit. If the bid is to be awarded on a unit bases, the itemization of the units shall be shown on a separate attachment.

The contractor and his subcontractors, if any, shall not discriminate against or intimidate any employee, or applicant for employment, to be employed in the performance of this contract, with respect to any matter directly or indirectly related to employment because of race, religion, color, sex, national origin, or ancestry. Breach of this covenant may be regarded as a material breach of the contract.

CERTIFICATION OF USE OF UNITED STATES STEEL PRODUCTS (if applicable)

I, the undersigned bidder, or agent as a contractor on a public works project, understand my statutory obligation to use steel products made in the United States (I.C. 5-16-8-2). I hereby certify that I and all subcontractors employed by me for this project will use U.S. steel on this project if awarded. I understand that violations hereunder may result in forfeiture of contractual payments.

ALTERNATE BIDS

A blank entry or an entry of "No Bid", "N/A", or similar entry on any Alternate will cause the bid to be rejected as non-responsive only if that Alternate is selected. If no change in the bid amount is required, indicate "No Change".

<u>MARK "ADD" OR "DEDUCT" FOR EACH ALTERNATE</u>

<u>Alternate Bid No. 1 – SUN SHADES</u>: Provide Sun Shades above windows on the south side of the academic wing as shown on elevations along with any associated blocking and flashing elements. Base bid: no sun shades on the south side of the south side of the building

Change the Base Bid the sum of(sum in words)			
			ADD
	DOLLARS (\$)	DEDUCT
	(sum i	n figures)	
Alternate Bid No. 2 – VIDEO BOARD: Pro	vide video board on the nor	th wall of the	e pool. Base
bid: no video board on the north side of the b	oard, provide conduit and w	viring.	
Change the Base Bid the sum of			
(sum in words)			
			ADD
	DOLLARS (\$)	DEDUCT
	(sum i	n figures)	
Alternate Bid No. 3 – AUTOMATED LOG	IC CORPORATION DDC	SYSTEM:	
BASE BID: Include any of the approved man	nufacturers.		
Alternate 03: If your base bid doesn't include	e Distech with Niagara 4, i	installed by	<u>Jackson</u>
Systems and Supply, please provide the cos	t for you to provide Distech	<u>ı with Niaga</u>	<u>ra 4,</u>
installed by Jackson Systems and Supply 1	n lieu of the controls contra	<u>ictor that you</u>	have
included in your base bid.			
Change the Base Bid the sum of			
(sum in words)			
			ADD
	DOLLARS (\$)	DEDUCT
	(sum i	n figures)	

ALTERNATE NO. 4: DOAS-1:

BASE BID: Furnished by Owner, received and installed by contractor.

<u>ALTERNATE NO. 4A:</u> Furnish DOAS-1 by Innovent. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
2	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in f	igures)	

<u>ALTERNATE NO. 4B:</u> Furnish DOAS-1 by Temtrol. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in f	figures)	

<u>ALTERNATE NO. 4C:</u> Furnish DOAS-1 by Trane. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in f	igures)	

<u>ALTERNATE NO. 4D:</u> Furnish DOAS-1 by VTS. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in fi	igures)	

<u>ALTERNATE NO. 4E:</u> Furnish DOAS-1 by York. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of	
(sum in words)	
	ADD
DOLLARS (\$ (sum in figures)) DEDUCT ;)
TERNATE NO. 5: DOAS-2:	
SE BID: Furnished by Owner, received and installed by contractor.	
<u>ALTERNATE NO. 5A:</u> Furnish DOAS-2 by Valent. Include performance equipment drawings, and warranty information with bid.	selection,
Change the Base Bid the sum of	
(sum in words)	
DOLLARS (\$) DEDUCT
(sum in figures	$\frac{1}{3}$
ALTERNATE NO. 5B: Furnish DOAS-2 by Daikin. Include performance equipment drawings, and warranty information with bid. Change the Base Bid the sum of	e selection,
DOLLARS (\$	ADD) DEDUCT
(sum in figures	<i>_) DEDUCT</i> <i>s</i>)
ALTERNATE NO. 5C: Furnish DOAS-2 by Trane. Include performance equipment drawings, and warranty information with bid. Change the Base Bid the sum of	selection,
	ADD
DOLLARS (\$	_) DEDUCT

(sum in figures)

<u>ALTERNATE NO. 5D:</u> Furnish DOAS-2 by Addison. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words	s)	
	DOLLARS (\$)	ADD DEDUCT
	_DOLLARS (<u>\$</u> (sun	n in figures)	DEDUCT
<u>ALTERNATE NO. 5E:</u> Furnish DOAS-2 by equipment drawings, and warranty information	Aaon. Include performed by the second	formance selec	tion,
Change the Base Bid the sum of			
	(sum in words	s)	
		``	ADD
	_DOLLARS (\$(sun)	DEDUCI
<u>E BID:</u> Furnished by Owner, received and ins <u>ALTERNATE NO. 6A:</u> Furnish DHU-1 and	talled by contractor DHU-2 by Innover	t. Include peri	Formance
<u>E BID:</u> Furnished by Owner, received and ins <u>ALTERNATE NO. 6A:</u> Furnish DHU-1 and selection, equipment drawings, and warranty	talled by contractor DHU-2 by Innoven information with b	t. Include perf	formance
<u>E BID:</u> Furnished by Owner, received and ins <u>ALTERNATE NO. 6A:</u> Furnish DHU-1 and selection, equipment drawings, and warranty Change the Base Bid the sum of	talled by contractor DHU-2 by Innover information with b	it. Include perf id.	formance
<u>E BID:</u> Furnished by Owner, received and ins <u>ALTERNATE NO. 6A:</u> Furnish DHU-1 and selection, equipment drawings, and warranty Change the Base Bid the sum of	talled by contractor DHU-2 by Innoven information with b (sum in words)	it. Include perf id.	formance
<u>E BID:</u> Furnished by Owner, received and ins <u>ALTERNATE NO. 6A:</u> Furnish DHU-1 and selection, equipment drawings, and warranty Change the Base Bid the sum of	talled by contractor DHU-2 by Innoven information with b (sum in words _DOLLARS (\$	t. Include perf id. s) n in figures)	Formance ADD DEDUCT
<u>E BID:</u> Furnished by Owner, received and ins <u>ALTERNATE NO. 6A:</u> Furnish DHU-1 and selection, equipment drawings, and warranty Change the Base Bid the sum of <u>ALTERNATE NO. 6B:</u> Furnish DHU-1 and selection, equipment drawings, and warranty Change the Base Bid the sum of	talled by contractor DHU-2 by Innoven information with b (sum in words _DOLLARS (\$	 it. Include perfid. id. in figures) in figures) include perfid. is) 	Formance ADD DEDUCT DEDUCT

<u>ALTERNATE NO. 6C:</u> Furnish DHU-1 and DHU-2 by Poolpak. Include performance selection, equipment drawings, and warranty information with bid.

change the base bid the sum of	(oum in words)	
	(sum in words)	
	DOLLARS (\$	DEDITCT
	(sum in figures)	DLDUCI
ALTERNATE NO. 6D: Furnish DH	HU-1 and DHU-2 by Desert Aire. Include r	erformance
selection, equipment drawings, and	warranty information with bid.	
Change the Base Bid the sum of		
	(sum in words)	
		ADD
	DULLAKS (\$) (sum in figures)	DEDUCI
ALTERNATE NO. 6E: Furnish DF selection, equipment drawings, and	IU-1 and DHU-2 by Aaon. Include perform warranty information with bid.	nance
Change the base bld the sum of	(sum in words)	
		ADD
	DOLLARS (\$)	DEDUCT
	(sum in figures)	
ERNATE NO. 7: Water-to-air and w	vater-to-water heat pumps:	
<u>E BID:</u> Furnished by Owner, receive	ed and installed by contractor.	
ALTERNATE NO. 7A: Furnish wa Waterfurnace. Include performance information with bid.	ter-to-air and water-to-water heat pumps by e selection, equipment drawings, and warrar	nty
Change the Base Bid the sum of		
Change the Base Bid the sum of	(sum in words)	
Change the Base Bid the sum of	(sum in words) DOLLARS (\$	ADD DEDUCT

<u>ALTERNATE NO. 7B:</u> Furnish water-to-air and water-to-water heat pumps by Daikin. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in fi	gures)	

<u>ALTERNATE NO. 7C:</u> Furnish water-to-air and water-to-water heat pumps by Trane. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in f	ägures)	

<u>ALTERNATE NO. 7D:</u> Furnish water-to-air and water-to-water heat pumps by Climate Master. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in f	figures)	

<u>ALTERNATE NO. 7E:</u> Furnish water-to-air and water-to-water heat pumps by York. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in f	igures)	

<u>ALTERNATE NO. 8: CT-1 and CT-2:</u> <u>BASE BID:</u> Furnished by Owner, received and installed by contractor.

<u>ALTERNATE NO. 8A:</u> Furnish CT-1 and CT-2 by Evapco. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in fi	gures)	

<u>ALTERNATE NO. 8B:</u> Furnish CT-1 and CT-2 by Marley. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in fig	gures)	

<u>ALTERNATE NO. 8C:</u> Furnish CT-1 and CT-2 by BAC. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in t	figures)	

<u>ALTERNATE NO. 8D:</u> Furnish CT-1 and CT-2 by Reymsa. Include performance selection, equipment drawings, and warranty information with bid.

Change the Base Bid the sum of			
	(sum in words)		
			ADD
	DOLLARS (\$)	DEDUCT
	(sum in t	figures)	

PART II (For projects of \$150,000 or more – IC 36-1-12-4)

These statements to be submitted under oath by each bidder with and as a part of his bid. (Attach additional pages for each section as needed.)

SECTION I EXPERIENCE QUESTIONNAIRE

1. What public works projects has your organization completed for the period of one (1) year prior to the date of the current bid?

Contract Amount	Class of Work	Completion Date	Name and Address of Owner

2. What public works projects are now in process of construction by your organization?

Contract Amount	Class of Work	Completion Date	Name and Address of Owner

3. Have you ever failed to complete any work awarded to you?______ If so, where and why?

4. List references from private firms for which you have performed work.

SECTION II PLAN AND EQUIPMENT QUESTIONNAIRE

1. Explain your plan or layout for performing proposed Work. (Examples could include a narrative of when you could begin, complete the project, number of workers, etc. and any other information which you believe would enable the governmental unit to consider your bid.)

2. Please list the names and addresses of all subcontractors (i.e. persons or firms outside your own firm who have performed part of the work) that you have used on public works projects during the past five (5) years along with a brief description of the work done by each subcontractor.

3. If you intend to sublet any portion of the work, state the name and addresses of each subcontractor, equipment to be used by the subcontractor, and whether you will required a bond. However, if you are unable to currently provide a listing, please understand a listing must be provided prior to contract approval. Until the completion of the proposed project, you are under a continuing obligation to immediately notify the governmental unit in the event that you subsequently determine that you will use a subcontractor on the proposed project.

4. What equipment do you have available to use for the proposed Project? Any equipment used by subcontractors may also be required to be listed by the governmental unit.

5. Have you into contracts or received offers for all materials which substantiate the prices used in preparing your proposal? If not, please explain the rationale used which corroborate the process listed.

SECTION III CONTRACTOR'S FINANCIAL STATEMENT

Attachment of Bidder's financial statement is mandatory. Any Bid submitted without said financial statement as required by statute shall thereby be rendered invalid. The financial statement provided hereunder to the governing body awarding the Contract must be specific enough in detail so that said governing body can make a proper determination of the Bidder's capability for completing the Project if awarded.

SECTION IV CONTRACTOR NON-COLLUSION AFFIDAVIT

The undersigned Bidder or agent, being duly sworn on oath, says that he has not, nor has any other member, representative, or agent of the firm, company, corporation or partnership represented by him, entered into any combination, collusion or agreement with any person relative to the price to be bid by anyone at such letting nor to prevent any person from bidding nor to induce anyone to refrain from bidding, and that this Bid is made without reference to any other bid and without any agreement, understanding or combination with any other person in reference to such bidding.

He further says that no person or persons, firms, or corporations has, have, or will receive directly or indirectly, any rebate, fee, gift, commission, or thing of value on account of such contract.

SECTION V OATH AND AFFIRMATION

I HEREBY AFFIRM UNDER THE PENALTIES OF PERJURY THAT THE FACTS AND INFORMATION CONTAINED IN THE FOREGOING BID FOR PUBLIC WORKS ARE TRUE AND CORRECT

Dated at	this	day of	, 20
			(Name of Organization)
	Ву		
			(Title of Person Signing)
	ACKNOV	VLEDGEME	NT
STATE OF)		
COUNTY OF) SS:		
Before me, a Notary Publ	lic, personally appea	red the above	e-named
Swore that the statements	contained in the for	regoing docur	nent are true and correct.
Subscribed and sworn to	before me this	da	ay of,
(Title)			
	Notary Public		
My Commission Expires:	:		
County of Posidonoa:			
County of Residence:			
	END OF SI	ECTION 00 3	31.00

SECTION 01 21 00 – ALLOWANCES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including amended General Conditions and other Division-1 Specification Sections, apply to work of this Section.

1.02 REQUIREMENTS INCLUDED

- A. The Specifications contain Allowances for particular items, methods of construction, quantities of materials, labor for certain items and these stated Allowances shall be included in the total lump sum bid price.
 - 1. Should the final amounts as determined from actual costs vary from these stated Allowances, the Contract price will be adjusted by Change Order as stated in the Conditions of the Contract.
 - 2. Under no circumstances shall work exceeding the stated Allowance amounts, proceed without a properly executed Change Order.
- B. A "Schedule of Allowances" showing amounts included in each prime Contract Sum, is included at the end of this Section.
- C. <u>Product/Materials Allowance</u>: At the earliest feasible date after award of Contract, advise the Architect and Construction Manager of scheduled date when final selection and purchase of each product or system described by each Allowance must be accomplished in order to avoid delays in performance of the Work.
 - 1. As requested by the Architect, obtain and submit proposals for the work of each Allowance for use in making final selection; include recommendations for selection which are relevant to the proper performance of the Work.
 - 2. Purchase products and systems as specifically selected (in writing) by the Architect.
 - 3. Submit proposals and recommendations, for purchase of products or systems of Allowances, in form specified for Change Orders.
 - 4. When requested, submit a substantiated survey of quantities of materials, as shown in the "Schedule of Values", revised where necessary, and corresponding with Change Order quantities.
 - 5. Amount of Allowance includes:
 - a. Net cost of product
 - b. Delivery to the site
 - c. Applicable taxes
 - 6. In addition to amount of Allowance, include in Bid, for inclusion in Contract Sum, Contractor's costs for:
 - a. Handling at site, including unloading, uncrating and storage
 - b. Protection from elements, from damage
 - c. Labor, installation and finishing

- d. Other expenses (e.g., testing, adjusting and balancing) required to complete installation
- e. Overhead and profit
- D. Contingency Allowance: Contingency allowance shall be used only as directed for Owner's purposes. Proposal shall be submitted by Contractor for work requested in format similar to that required for Change Orders. Compensation to the Contractor for work requested utilizing this Allowance shall be for <u>only</u> Contractor's costs as defined by Paragraph 7.3.7 of the General Conditions, except no compensation shall be allowed for overhead and profit. At time of Project closeout, unused amounts remaining in contingency allowance shall be credited to Owner by Change Order.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.01 **PRODUCT ALLOWANCE**

- A. Bid Category No. 01 General Trades (Project Signage) \$300,000
- B. Bid Category No. 15 Electrical & Technology (PL1 NAT Light) \$350,000

3.02 CONTINGENCY ALLOWANCES

Allow a lump sum additional work required but not indicated on Drawings or reasonably anticipated.

A.	Bid Category No. 01 – General Trades (Undercut Unsuitable Soils)	\$150,000
	Bid Category No. 01 - General Trades	\$120,000
B.	Bid Category No. 02 – Masonry	\$25,000
C.	Bid Category No. 03 – Structural Steel/Misc Metals	\$25,000
D.	Bid Category No. 04 - Roofing	\$25,000
E.	Bid Category No. 05 – Metal Studs, Drywall & Acoustical	\$25,000
F.	Bid Category No. 06 – Curtainwall, Storefront & Glazing	\$20,000
G.	Bid Category No. 07 – Casework/Millwork	\$20,000
H.	Bid Category No. 08 - Flooring	\$20,000
I.	Bid Category No. 09 – Epoxy Terrazzo	\$20,000
J.	Bid Category No. 10 – Painting	\$20,000
K.	Bid Category No. 11 – Aquatic Construction	\$50,000
L.	Bid Category No. 12 – Fire Protection	\$10,000
M.	Bid Category No. 13 – Plumbing	\$40,000
N.	Bid Category No. 14 - HVAC	\$100,000
N.	Bid Category No. 15 – Electrical & Technology	\$100,000

END OF SECTION 01 21 00

SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including amended General Conditions and other Division 1 Specification Sections, apply to work of this Section.

1.02 PURPOSE

A. The Bids for the Alternates described herein are required in order for the Owner to obtain information necessary for the proper consideration of the Project in its entirety.

1.03 ALTERNATES

A. Definitions: Alternates are defined as alternate products, materials, equipment, installations or systems for the Work, which may, at Owner's option and under terms established by Instructions to Bidders, be selected and recorded in the Owner-Contractor Agreement to either supplement or displace corresponding basic requirements of Contract Documents. Alternates may or may not substantially change scope and general character of the Work; and must not be confused with "allowances", "unit prices", "change orders", "substitutions", and other similar provisions.

1.04 SCHEDULE OF ALTERNATES

- A. <u>ALTERNATE NO. 1: SUN SHADES:</u> Provide Sun Shades above windows on the south side of the academic wing as shown on elevations along with any associated blocking and flashing elements. Base bid: no sun shades on the south side of the south side of the building.
- B. <u>ALTERNATE NO. 2: VIDEO BOARD:</u> Provide video board on the north wall of the pool. Base bid: no video board on the north side of the board, provide conduit and wiring.
- C. <u>ALTERNATE NO. 3: AUTOMATED LOGIC CORPORATION DDC SYSTEM:</u> <u>BASE BID: Include any of the approved manufacturers.</u> <u>Alternate 03: If your base bid doesn't include **Distech with Niagara 4, installed** <u>by Jackson Systems and Supply, please provide the cost for you to provide</u> <u>Distech with Niagara 4, installed by Jackson Systems and Supply in lieu of the</u> <u>controls contractor that you have included in your base bid.</u>
 </u>

D. <u>ALTERNATE NO. 4: DOAS-1:</u>

BASE BID: Furnished by Owner, received and installed by contractor.

<u>ALTERNATE NO. 4A:</u> Furnish DOAS-1 by Innovent. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 4B:</u> Furnish DOAS-1 by Temtrol. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 4C:</u> Furnish DOAS-1 by Trane. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 4D:</u> Furnish DOAS-1 by VTS. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 4E:</u> Furnish DOAS-1 by York. Include performance selection, equipment drawings, and warranty information with bid.

E. <u>ALTERNATE NO. 5: DOAS-2:</u>

BASE BID: Furnished by Owner, received and installed by contractor. ALTERNATE NO. 5A: Furnish DOAS-2 by Valent. Include performance

<u>ALTERNATE NO. 5A:</u> Furnish DOAS-2 by Valent. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 5B:</u> Furnish DOAS-2 by Daikin. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 5C:</u> Furnish DOAS-2 by Trane. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 5D:</u> Furnish DOAS-2 by Addison. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 5E:</u> Furnish DOAS-2 by Aaon. Include performance selection, equipment drawings, and warranty information with bid.

F. <u>ALTERNATE NO. 6: DHU-1 and DHU-2:</u>

<u>BASE BID:</u> Furnished by Owner, received and installed by contractor. <u>ALTERNATE NO. 6A:</u> Furnish DHU-1 and DHU-2 by Innovent. Include performance selection, equipment drawings, and warranty information with bid. <u>ALTERNATE NO. 6B:</u> Furnish DHU-1 and DHU-2 by Seresco. Include performance selection, equipment drawings, and warranty information with bid. <u>ALTERNATE NO. 6C:</u> Furnish DHU-1 and DHU-2 by Poolpak. Include performance selection, equipment drawings, and warranty information with bid. <u>ALTERNATE NO. 6D:</u> Furnish DHU-1 and DHU-2 by Desert Aire. Include performance selection, equipment drawings, and warranty information with bid. <u>ALTERNATE NO. 6D:</u> Furnish DHU-1 and DHU-2 by Desert Aire. Include performance selection, equipment drawings, and warranty information with bid. <u>ALTERNATE NO. 6E:</u> Furnish DHU-1 and DHU-2 by Aaon. Include performance selection, equipment drawings, and warranty information with bid.

 G. <u>ALTERNATE NO. 7: Water-to-air and water-to-water heat pumps:</u> <u>BASE BID:</u> Furnished by Owner, received and installed by contractor. <u>ALTERNATE NO. 7A:</u> Furnish water-to-air and water-to-water heat pumps by Waterfurnace. Include performance selection, equipment drawings, and warranty information with bid. ALTERNATE NO. 7B: Furnish water-to-air and water-to-water heat pumps by

<u>ALTERNATE NO. 7B:</u> Furnish water-to-air and water-to-water heat pumps by Daikin. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 7C:</u> Furnish water-to-air and water-to-water heat pumps by Trane. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 7D:</u> Furnish water-to-air and water-to-water heat pumps by Climate Master. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 7E:</u> Furnish water-to-air and water-to-water heat pumps by York. Include performance selection, equipment drawings, and warranty information with bid.

H. <u>ALTERNATE NO. 8: CT-1 and CT-2:</u>

BASE BID: Furnished by Owner, received and installed by contractor.

<u>ALTERNATE NO. 8A:</u> Furnish CT-1 and CT-2 by Evapco. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 8B:</u> Furnish CT-1 and CT-2 by Marley. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 8C:</u> Furnish CT-1 and CT-2 by BAC. Include performance selection, equipment drawings, and warranty information with bid.

<u>ALTERNATE NO. 8D:</u> Furnish CT-1 and CT-2 by Reymsa. Include performance selection, equipment drawings, and warranty information with bid.

PART 2 - PRODUCTS, PART 3 - EXECUTION (Not Used)

END OF SECTION 01 23 00



ADDENDUM NO. THREE

PROJECT: CLARK-PLEASANT COMMUNITY SCHOOL CORP. WHITELAND COMM. HIGH SCHOOL ADDITION PHASE 1: 3-STORY AND NATATORIUM ADDITION

PROJECT NUMBER:

22130

DATE OF ADDENDUM: September 26th, 2023



THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND IS ISSUED IN ACCORDANCE WITH THE INSTRUCTIONS TO BIDDERS. ACKNOWLEDGE RECEIPT OF THIS ADDENDUM BY SIGNING THE ADDDENDUM ACKNOWLEDGMENT SECTION OF THE BID FORM.

QUESTIONS

Q1: Room j2300 has note 15 for solid surface tops but section 1/a501 calls out wood tops.Which is correct?A: 2" BUTCHER BLOCK COUNTERTOP (WD-2) REFER TO FINISH LEGEND.

Q2: Science casework specs call for an inset design, this is not really done anymore. Will flush overlay be acceptable? **A:** It's acceptable.

Q3: Science casework spec call for small format interchangeable core locks. Standard casework spec calls for standard locks. Will SFIC lock really be required?A: Not require, casework to be keyed by room.

Q4: Science casework spec calls out 3 different type of fume hoods, can you clarify which type of hood you want us to provide.

A: See updated specs 12 53 00 2.07 in addendum 3

Q5: Please clarify what type of Axis table you are wanting included. Metal? Wood? What options are we to include?

A: See specs 12 53 00 1.00,1.01, If contractor wants to substitute to something equal or better. The science station with epoxy top, laminate on the sides, and no automatic riser. Prove water, air and power to every science station.

Q6: Drawings show acid, flammable, google and fire blanket cabinets. These do not show up in the specs. Do I need to include them?

A: equipment provided by owner. Provide blocking as needed.

Q7: Plastic Lockers 2/a112 are shown 16"x16". This is not a valid size for lockers. They generally run on 3" increments. We would need to supply 15x15, 18x15 or 15x18 but this will change the layout and quantity of lockers in each room. Please clarify what size needs provided.

A: 15x15 is acceptable, contractor to provide shop drawings (Specs 10 50 00 1.3 C.)

Q8: I have a question relating to the gyp board ceilings in the Natatorium lockers rooms and soffits. The ceiling designation is GB-1 and there is also plan note #9 which calls out the ceilings as a "hard ceiling with G90 stud backup, use Permabase cement board or similar as sheathing." Permabase is similar to durock and I've never seen it used a s finished painted product. Is the permabase spackled and painted?

A: Change plan note #9 to "5/8" MOISTURE RESISTAN GYPSUM BOARD CEILING WITH G90 STUD BACKUP".

Q9: In these same general areas detail 5/A501 calls for moisture resistant drywall on the face of the drop under the Natatorium seating area. Does this drywall go on the horizontal soffit or just the vertical?

A: The moisture resistant drywall will continue horizontal soffit.

Q10: The glazing spec shows 2 insulated glass types.

1) The typical says VE2M HS/HS I would assume that to mean VE1-2M which is clear low E?

2) The pool glass says VUE26-50 That is Solar Blue with a reflective low E?

3) I am being told by my Viracon rep. The typical should say VE26-2M. That is Solar Blue with low E?

A: All the exterior glazing is VE26-2M except the Natatorium glazing which is VUE7-50.

Q11: We are bidding on the Epoxy flooring (Sherwin Williams) and Conc-1 for this renovation. I don't see a specification for the CONC-1. If you are bidding, can you find out what the spec is for CONC-1?

A: See Spec section 03 39 00- Concrete Sealing

Q12: What is the intent for stair railings?

1) Detail 3/A501 calls for aluminum railings

2) Detail 2 & 6/A501 calls for steel railings

3) Spec. Section 05 73 00 refers to PERFORATED ALUMINUM GUARDRAIL.

A: Steel handrail and guardrail throughout new construction except inside the pool use aluminum railings.

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Q13: What is the intent for stair stringers?

- 1) Detail 2/A501 calls for channel stringers
- 2) Detail 6/A501 calls for 16x4 tube stringers

A: Changed stair stringers to16x4 tube stringer, see addendum 3

Q14: Regarding Detail 4/A501. The Perforated Metal Risers requirements are not provided. Please provide otherwise we will assume this is to match pattern and thickness of guardrail material.

A: Use standard perforated metal by metal pan manufacturers.

Q15: The manufacturers of the glass have all come back to me regarding the 88000 Glazing spec 2.3 Security Glass. The specification calls for 5/16" annealed laminated glass. The max sqft for annealed laminated is 18sqft. A lot of monolithic and insulated glass exceeds 18sqft. This glass will require heat strengthened laminated glass. The manufacturers are also concerned about the insulated glass because with the inboard glass being annealed laminated. Shading, blinds, signs on the glass can cause heat buildup and break the glass. This is what I propose for 88000 2.3 Security Glass.

1) Single Pane 5/16" thick overall laminated glass. 1/8" heat strengthened glass, 0.060 interlayer, 1/8" heat strengthened glass.

2) Insulated Security Glass: Units include 5/16" thick overall laminated glass 1/8" heat strengthened, .060 interlayer, 1/8" heat strengthened, $\frac{1}{2}$ air space, $\frac{1}{4}$ " tempered pane. **A:** Proposal is acceptable. See updated specifications in addendum 3

Q16: It appears that the drawings and the specs are in conflict with the FORMED METAL WALL PANELS 074214. The specs show a MBCI 7.2 panels system, and the drawings show a MBCI designer series fluted panels system. Please see the attached documents. Could you confirm which product is needed?

A: The drawings are correct. MBCI DESIGNER SERIES FLUTED. LENGTH 8'-0"LONG 1/3 STAGGER" at the pool area.

Q17: Are image files and details available for the vinyl wall graphics and acrylic signs? **A:** The signage contractor to work with the owner on the final designs. We will be involved in providing general concepts and guidance throughout. However, a lot of input will need to come from Whiteland and coordinating with their branding.

Q18: Concrete Floor Sealers:

1) Finish Plans list a floor finish CON-1 which cannot be found on list of finishes.

2) Section: 099100 Interior Painting has floor coatings listed but system cannot be found on list of finishes:

A: Conc-1 is sealed concrete. Disregard floor coatings in the 099100 Interior Painting.

Q19: Classroom Mechanical Closets:

1) Finishes are not indicated in mech closets is this correct?

A: yes, no wall paint but sealed concrete floor in the Mechanical Closets.

Q20: Are you able to see if there are any doors that are the Overhead Coiling Grill type? **A:** No, we don't have Overhead Coiling Grill

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Q21: clarification on the storm sewer pipe material referenced "PP pipe". **A:** CrossRoad Engineers answer – the storm sewer labeled "PP pipe" refers to polypropylene pipe described in the Stormwater Conveyance technical specifications section 334200 (see Part 2-Products, 2.4)

Q22: Regarding the Solid Plastic Lockers, there are no dimensions listed in the bid documents. Please let us know the desired HxWxD. **A:** 15x15x60

Q23: Specs list Athletic Lockers with lift up lid and open storage but notes on Plan Page A112 list Single and Double Tier Lockers. Please advise. **A:** Provide vented door for single and double tier lockers.

Q24: Specs list solid plastic benches but notes on Plan Page A112 list concrete benches. Please advise.

A: Concrete benches in the pool locker room

Q25: Specs list NFPA 286 fire rated material but also list basis of design as Scranton Tufftec which is not NFPA 286 compliant. Please advise. **A:** The school has a fire sprinkler system, the lockers do not need to meet NFP 286.

A. The school has a life splitticel system, the lockers do not need to meet NFF 200.

Q26: Specs call for Ventilation in the Doors. Our Lockers are already designed with Concealed/Perimeter Ventilation as cutting holes/vents can reduce both the structural integrity and theft proof properties. Please see attached and let me know if our Concealed Ventilation would be acceptable.

A: acceptable

Q27: We just noticed this Schluter metal profile called out by Elevation Note #2 on A751 Elevations. Shown between the wall tile and epoxy base. Schluter Dilex AHKA typically is used to provide a cove between the wall and floor transition. I pasted below images below showing what these looks like. As well as one of these areas shown on A751 where this is noted to be used.

I was thinking between the wall tile and epoxy base there would be a Schluter Jolly type profile needed. Similar to what's noted to be used at the top of these same walls by note #3. Should the arrows for Note #2 be pointing at the epoxy base to floor transitions instead? If it is can you let me know if we're to provide the Schluter Jolly metals mentioned previously between the wall tile and epoxy base or if that should be provided by the epoxy contractor? **A:** Yes, please provide Schluter Jolly where tile meets the top of the epoxy cove base. They are correct. The Schluter Dilex profile would not work well in this application, it should be Jolly on both ends of the tile.

Q28: detail 9/A142, is the gutter being fastened to the face of the parapet wall? **A:** It's scupper. See updated roof detail in addendum 3

Q29: Detail 9/A143, what is the wall type/finish of the existing wall that we are flashing too? **A:** Metal panel over metal stud. Contractor to field verify the exact wall composition.

Q30: Detail 6/A142, what is the wall type/finish of the existing wall that we are flashing too? **A:** masonry over CMU. Contractor to field verify the exact wall composition.

Q31: Detail 12/A142, what is the wall type/finish of the existing wall that we are flashing too? **A:** Masonry over CMU. Contractor to field verify the exact wall composition.

Q32: drawing 5/A143, is the blocking new or existing, shown on the existing roof? If new, we will need to remove the existing roof to accommodate install of the wood nailer. **A:** new blocking, remove roof as needed.

Q33: Spec Section 075419, 2.2, I, states that the wood blocking needs to be treated for fire and rot resistance. Spec Section 061053 Rough Carpentry references Fire Treated for interior application only. Does the exterior roof blocking need to be Fire Treated? **A:** No

Q34: Typical jamb detail 2 on A502. The storefront terminates to the wood blocking. It shows no vapor barrier between the window and the wood. We cannot perimeter seal to the wood. Typical jamb 4 on A503 is the same.

A: See updated typical window detail in addendum 3

Q35: Typical 1st floor head condition detail 2 on A504. The storefront window terminates to the wood blocking.

A: Use a similar detail as updated jamb detail.

Q36: Typical 2nd floor head condition detail 1 on A505. Same **A:** Use a similar detail as updated jamb detail.

Q37: Typical 3rd floor head condition detail 2 on A505. Same **A:** Use a similar detail as updated jamb detail.

Q38: All of the details show aluminum trim covering up the void at the wood. How are we supposed to make the corner between the head and jamb? We could miter it but how do we seal it?

A: See updated typical window detail in addendum 3

Q39: We cannot seal to the wood. We cannot seal to the angle trim. The openings will leak either immediately or at some point.

A: See update typical window detail in addendum 3

Q40: Should we include Aggregate Piers for the Unit A boiler room? If so, will equipment be able to tram to that work area.

A: Aggregate piers not required for Unit A.

Q41: the finish plans show the restroom wall tile opposite of what the elevations show. On A751 Elevations - Group Restroom Elevations show WT1 @ toilet wall & WT2 @ Sink wall. Single User Elevations Show WT1. Then most finish plans show WT2 @ toilet wall & WT1 @ Sink Wall and single user most show WT2 though some show WT1. Can you please let me know which is correct? WT2 is a higher priced tile vs WT1.

A: The typical elevations for the group restrooms and single user restrooms on sheet A751 are shown correctly and respective restrooms should be tiled accordingly:

Group Restrooms – WT-1 (Arctic white) on toilet wall; WT-2 (Seabreeze Blue) on sink wall Single User Restroom – WT-1 (Arctic white) on wet wall

Q42: Should we include Aggregate Piers for the Unit D canopy? If so, will equipment be able to tram to that work area.

A: Aggregate piers not required for Unit D.

Q43: There are several column foundations being added to the existing building. Our installation equipment cannot work within 5 feet of existing walls. Can these foundation be enlarged to eliminate the need for RAP support or can they be enlarged to allow for installation of piers? **A:** Aggregate piers are not required for footings directly adjacent the existing structure. Footings have already been designed to bear on unimproved soils.

Q44: We need a clarification on the height of the B6 and B8 column wraps in the natatorium area of Units L & M along the north, west and south walls beyond the second floor seating line. Wall types B6 & B8 are indicated to extended to deck but based on the elevations on sheet A753 it appears the B6 column wraps stop at 26' AFF and the two B8 wraps stop at 28' AFF. Is that correct or should these column wraps extend to deck. Can please get confirmation on this? **A:** sheet A753 is correct.

SPECIFICATIONS

- 1. Add Spec Section 03 37 00 Stained and Sealed Concrete Floors to the table of contents, add the spec section to the specifications in its entirety (see attached)
- 2. Spec Section 07 27 26 Air-Water Resistive Barrier:
 - a. Add W.R. Meadows to 2.1.A as an approved equal.
- 3. Spec Section 07 42 14 Corrugated Wall Panels:
 - a. Changed 2.2 C. 1 to "Basis-of-Design Product: Subject to compliance with requirements, provide MBCI; Designer Series Fluted or comparable product by one of the following."
- 4. Spec Section 07 95 13 Expansion Joint Covers:
 - a. Add ENBW SERIES to 2.1.A as an approved equal.
- 5. Spec Section 13 11 00 SWIMMING POOLS:
 - a. Add Poseidon Drowning Detection System to 2.22.A as an approved equal.
- 6. Spec section 08 80 00 Glazing:
 - a. Changed 2.3 SECURITY GLASS to:
 - A. Single Pane 5/16" thick overall laminated glass. 1/8" heat strengthened glass, .060 interlayer, 1/8" heat strengthened glass.

B. Insulated Security Glass: Units include 5/16" thick overall laminated glass 1/8" heat strengthened, .060 interlayer, 1/8" heat strengthened, $\frac{1}{2}$ ' air space, $\frac{1}{4}$ " tempered pane.

- b. Changed 2.4 B. 3 to "Typical Locations: 1 inch thick tempered equal to Viracon VE2M HS/HS."
- c. Changed 2.4 B. 4 to "Pool Locations: 1 inch thick tempered equal to Viracon VUE26-50."
- 7. Spec Section 09 77 13 ACOUSTICAL FABRIC PANELS:
 - a. Add Fabric Wall by G&S Acoustics to 2.1.A as an approved equal.
- 8. Spec Section 10 99 10 Display Cases:
 - a. Add Platinum Visual Systems to 2.1.A as an approved equal if the Glass Board product meets the 2.9 A.3. Back-Painted Color to match PPG1244-7 Florentine Lapis (PT-4)
- 9. Spec Section 12 24 00 Sun Shades:
 - a. Add Construction Specialties to 2.1.A as an approved equal.
- 10. Spec Section 12 53 00 Science Casework:
 - a. Changed 2.07 Fume Hoods to:
- A. Labconco Basic 47 Laboratory Hood system.
 - 1. Constructed of powder-coated steel. Provide 4 foot widths.
 - 2. Weight: 370 lbs.
 - a. Dimensions: 47 inch w x 25 inch d x 53 h.
 - b. Electrical: 220 volts, 50 Hz, 5.6 amps.
 - 3. Integral blower.
 - a. Lighting: Incadenescent.
 - 4. Style: Provide with bench.
 - 5. Additional design requirements:
 - a. By pass airflow design, 16 gauge steel exterior, tempered safety glass, two piece baffle, removable front panel, factory prepared to accept service fixtures, powder coated steel exhaust.
 - b. Provide explosion proof light and blower.
 - c. Provide electrical receptacle kits and cupsink and turret kits.
 - 6. Hoods shall conform to the requirements of ASHRAE 110-95.
 - 7. Hoods shall be in compliance with UL1805.

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DRAWINGS REVISIONS:

 Drawing Number: G000 Drawing Title: COVER - VOLUME 1 Revision:

Change Project Directory Construction Manager to below: THE SKILLMAN CORPORATION 3834 S. EMERSON AVE. INDIANAPOLIS, IN 46203

PHONE: 317/650-5367 CONTACT: JEREMY PUTNAM

 Drawing Number: G001 Drawing Title: COVER - VOLUME 2 Revision:

Change Project Directory Construction Manager to below: THE SKILLMAN CORPORATION 3834 S. EMERSON AVE. INDIANAPOLIS, IN 46203

PHONE: 317/650-5367 CONTACT: JEREMY PUTNAM

 Drawing Number: LS001 Drawing Title: LIFE SAFETY PLAN -FIRST FLOOR Revision:

Revised LIFE SAFETY SUMMARY

Changed start to end of LONGEST PATH OF TRAVEL

 Drawing Number: LS002 Drawing Title: LIFE SAFETY PLAN -SECOND FLOOR Revision:

Revised LIFE SAFETY SUMMARY

Revised Whiteland High School – Project X, Exit Calculations

Changed start to end of LONGEST PATH OF TRAVEL

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 Drawing Number: LS003 Drawing Title: LIFE SAFETY PLAN -THIRD FLOOR Revision:

Revised LIFE SAFETY SUMMARY

Changed start to end of LONGEST PATH OF TRAVEL

6. Drawing Number: L601 Drawing Title: Site Details Revision:

Detail 01: Detail was modified to show a 6" curb face reveal.

Detail 08: Detail was previously reflected in C-Series sheets. Now added to L-Series sheets for continuity amongst similar curbing and flatwork details.

 Drawing Number: S102AGH Drawing Title: EX. JOIST REINFORCING PLAN AND DETAILS Revision:

Added plan and details for joist reinforcing in the existing building, specifically Units A, G, & H.

 Drawing Number: A002 Drawing Title: REFLECTED CEILING PLAN - FIRST FLOOR - UNIT L Revision:

Change 1/A002 GB-1 ceiling types note to "INSIDE THE POOL AND POOL LOCKER ROOMS USE G90 STUDS AND 5/8" MOISTURE RESISTAN GYPSUM BOARD WITH POOL ENCLOSURE COATING OR SIMILAR."

 Drawing Number: A121L Drawing Title: REFLECTED CEILING PLAN - FIRST FLOOR - UNIT L Revision:

Change plan note #9 to "5/8" MOISTURE RESISTAN GYPSUM BOARD CEILING WITH G90 STUD BACKUP"

10. Drawing Number: A142 Drawing Title: ROOF DETAILS Revision: Revised Roof Detail 9/A142.

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11. Drawing Number: A501 Drawing Title: DETAILS Revision:

> Changed 2/A501 note to "16X4 TUBE STRINGER" Changed 4/A501 note to "16X4 TUBE STRINGER, PAINTED"

12. Drawing Number: A503 Drawing Title: DETAILS Revision:

Revised Roof Detail 4/A503.

13. Drawing Number: A504 Drawing Title: DETAILS Revision:

Revised Roof Detail 2/A504 & 3/A504.

14. Drawing Number: A505 Drawing Title: DETAILS Revision:

Revised Roof Detail 1/A505 & 2/A505.

15. Drawing Number: A721J Drawing Title: INTERIOR FINISH PLAN – FIRST FLOOR – UNIT J Revision:

Change finish plan keynote #4 to "PROVIDE WT-1 AT THIS LOCATION, FLOOR TO CEILING, VERTICALLY STACKED. REFER TO INTERIOR ELEVATIONS SHEET A751." (Applies to all finish plan sheets) Change finish plan keynote #5 to "PROVIDE WT-2 AT THIS LOCATION, FLOOR TO CEILING, VERTICALLY STACKED. REFER TO INTERIOR ELEVATIONS SHEET A751." (Applies to all finish plan sheets)

16. Drawing Number: A722J Drawing Title: INTERIOR FINISH PLAN – SECOND FLOOR – UNIT J Revision:

Change finish plan keynote noted in staff restrooms "STAFF RR" J206 and "STAFF RR" J208 to be finish plan keynote #4.



17. Drawing Number: A722L Drawing Title: INTERIOR FINISH PLAN – SECOND FLOOR – UNIT L Revision:

Change finish plan keynote noted in family restroom "FAMILY RR" L210 to finish plan keynote #4.

Change wall finish in "FAMILY RR" L210 to PT-2.

18. Drawing Number: A731 Drawing Title: INTERIOR TRANSITION DETAILS Revision:

Add PRECAST TERRAZZO WALL BASE detail 16/A731.

19. Drawing Number: A751 Drawing Title: INTERIOR ELEVATIONS Revision:

Change interior elevation keynote #2 to "1/4" SATIN ANODIZED ALUMINUM FINISH, SCHLUTER JOLLY TRIM – WALL BASE/WALL TRANSITION".

Change interior elevation keynote #6 to "1/4" SATIN ANODIZED ALUMINUM FINISH, SCHLUTER JOLLY TRIM – WALL /WALL TRANSITION".

Attachments: CrossRoad Engineers Narrative, 301, 302, 400, 500, 501, 1000, LS001, LS002, LS002, L601, S102AGH, A503, A504, A505, A731, Primary Engineering Narrative, P002, P100M, P101AGH, P101M, P403, P501, P504, E201M, E601, E701, E705, Design27 Narrative

End of Addendum 3







OVERALL FIRST FLOOR PLAN SCALE: 1" = 30'-0"

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Whiteland High School

Applicable Codes: 2014 Indiana Building Code

2014 Indiana Mechanical Code 2012 Indiana Plumbing Code 2009 Indiana Electrical Code

2010 Indiana Energy Conservation Code

2014 Indiana Fire Code ICC/ANSI A-117.1 Standard, 2009 Edition General Administrative Rules (GAR)

Scope of Project:

The project scope includes construction of a 3-story classroom wing, and renovation of a small portion of the existing building. The addition will have 82,127 sq ft on the 1st floor, 48,911 sq ft on the 2nd floor, and 39,560 sq ft on the 3rd floor. The addition will include a 3-story atrium adjoining the existing 2-story building. Renovation of the existing building will involve 3,380 sq ft on the 1^{st} floor and 2,105 sq ft on the 2^{nd} floor.

Variance Approvals 23-07-48:

· To permit the exterior wall of the existing building with non-rated openings to separate the addition in lieu of a 4-hour fire wall

- To not provide a smoke control system for the atrium • To permit the 1st floor of the addition to exceed allowable area for Type IIB Construction · To omit sprinklers over the pool
- To permit egress travel distance from the existing building to exceed code limit

Occupancy Classifications:

Educational use areas for high school students - E Occupancy [305.1]

Assembly uses accessory to Group E are not considered separate occupancies [303.1.3] Office - accessory occupancy less than 10% of the building area - B Occupancy [304.1, 508.2]

Construction Type:

Type IIB (noncombustible, unprotected) Construction - variance to be requested for 1st floor of the addition Existing building is Type IIB Construction to remain 14,500 sf Table 503 Tabular Area: Frontage Increase: + 5,500 sf 506.2 <u>+ 29,000 sf</u> 506.3 Sprinkler Increase: 49,000 sf Allowable Area per floor:

Actual Area per floor: 82,127 sf - 1st floor 48,911 sf - 2nd floor 39,560 sf - 3rd floor

Allowable Height:

3 stories permitted for Classroom Wing [504.2]

Fire Wall: Variance approved to permit the exterior wall of the existing building with non-rated openings to separate the addition in lieu of a 4-hour fire wall [706, 506.2.2]

Occupancy Separations: Occupancy separations not required, based upon classification of

assembly uses accessory to an educational occupancy as E Occupancy areas [303.1.3] B Occupancy office areas are not required to be separated based upon

compliance as accessory occupancy[508.2]

Building Elements - Fire-resistive Requirements Building elements, including structural frame and roof are permitted to

be of noncombustible, unprotected construction [I able 601] Exterior walls of the additions are permitted to be nonrated, noncombustible, since having at least 10 feet of fire separation distance

[Table 602]

Floor Openings and Penetrations, and Shafts: Interior exit stairways connecting 3 floors are required to be enclosed with 1-hour fire barriers [1022.2]

Exit access stairways in the atrium are permitted to be unenclosed [1009.3, exc. 5] Ducts are permitted to connect up to 2 floor levels where floors are nonrated without shaft protection, where the annular space is filled with

a noncombustible material [717.6.3] Ducts connecting 3 floor levels are required to be enclosed in a 1-hour shaft, or be provided with a fire damper at each floor level [717.6.3] Noncombustible penetrating items (excluding ducts) are permitted to connect 3 floor levels where floors are nonrated without shaft protection,

where the annular space is filled with a noncombustible material [714.4.2.1]

Incidental Use Separations: Walls (non-rated) for these areas are required to terminate at the deck,

with self-closing doors Science rooms containing any hazardous materials
Boiler and furnace rooms with equipment sized as indicated in Table
509 [Table 509, Sec. 509.4.2]

Fire and/or smoke dampers are not required in duct penetrations of these non-rated separations

Fire Dampers: Fire dampers are required at duct penetrations of fire-rated shafts and at duct penetrations of fire barriers required to have more than a 1-hour fire

rating [717.5] **Occupant Load Factors:**

Pool deck, assembly spaces Classrooms Labs/Pool surface

Storage/Mechanical

Office

15 sf per occupant 20 sf per occupant 50 sf per occupant 100 sf per occupant 300 sf per occupant

Egress Corridors:

Egress corridors throughout the building are permitted to be nonrated based upon automatic sprinkler protection [1018.1]

Panic Hardware: Panic hardware is required on all means of egress doors serving an occupant load of 50 or more [1008.1.10]

Egress Travel Distance: The maximum travel distance to an exterior exit is permitted to be a maximum of 250 feet [1016.2]

Automatic Sprinklers: Automatic sprinklers are required throughout, based upon an E Occupancy fire area exceeding12,000 sf - sprinklers will be provided throughout the building [903.2.3]

Standpipes:

Class I standpipes required in the 3-story addition, based upon having a floor level located more than 30 feet above the level of fire department vehicle access [905.3.1] The system is permitted to be a manual-wet system, with fire

department pumper providing the pressure for the system

Fire Alarm System: Fire alarm system required [907.2.3]

Manual pull stations are not required based upon initiation of the alarm system by sprinkler water flow

Smoke Detectors: Smoke detectors are required for HVAC shutdown for systems

delivering in excess of 2,000 cfm [606.1, IMC] Smoke detection will be provided in the atrium [404]

Maximum Egress Travel Distance = 217 Feet

EXIT	EXIT / EXIT ACCESS
	NOT IN SCOPE OF WORK
 • _ • _	2 HOUR FIRE-RATED WALL
	1 HOUR FIRE-RATED WALL
	SMOKE RESISTIVE WALL PER VARIANCE





3

			V	Initelan	d High Sc	nool - F	roject X					
		-	EXIT C	ALCULAT	IONS - 2008		BUILDING C	ODE	Foot C		ouidad	
Floor Or	Occupancy	Area	Occ Load	Total No.		-eet Of Exit	wath Required		Feel C	n Exil Width Pro	ovided	
Location	Use	(Sq. feet)	(Sq. feet)	(S.F./Person)	Persons	(Inch/Pers)	Stairs	(Inch/Pers)	Doors	Stairs	Horiz.	Do
3 rd Floor	Classrooms	18,168	20	909								
	Labs	5,167	50	104			22		0			
	Conference	565	15	38					2		1	
	Mech/Storage	3,229	300	11								
	TOTAL			1,062	0.2	17.70	0.15	13.28	32.19	12	30.	
2 nd Floor	Classrooms	24,554	20	1,228								
	Conference	3,831	15	256							5	
	Pool Seating ^a	720	Fixed	720		- 						
	Mech/Storage	1,480	300	5	-							
	TOTAL			2,209	0.2	36.8	0.15	27.6	39.8	5-C	31.	
1 st Floor	Classrooms	21,108	20	1,056					1:			
	Conf/Seating	2,709	15	139								
	Office	227	100	3					<u>. </u>			
	Locker Rooms	717	50	15		1						
	Kitch./Commercial	377	200	2								
	Swimming Pool	13,037	50	261								
	Pool Deck	10,267	15	685								
	Mech/Storage	4,357	300	15								
	TOTAL			2,176	-	-	0.15	27.2	-	-	59.	





LIFE SAFETY SUMMARY

Whiteland High School

- Applicable Codes: 2014 Indiana Building Code
- 2014 Indiana Mechanical Code 2012 Indiana Plumbing Code
- 2009 Indiana Electrical Code
- 2010 Indiana Energy Conservation Code 2014 Indiana Fire Code
- ICC/ANSI A-117.1 Standard, 2009 Edition General Administrative Rules (GAR)

Scope of Project:

The project scope includes construction of a 3-story classroom wing, and renovation of a small portion of the existing building. The addition will have 82,127 sq ft on the 1st floor, 48,911 sq ft on the 2nd floor, and 39,560 sq ft on the 3rd floor. The addition will include a 3-story atrium adjoining the existing 2-story building. Renovation of the existing building will involve 3,380 sq ft on the 1st floor and 2,105 sq ft on the 2nd floor.

Variance Approvals 23-07-48:

- To permit the exterior wall of the existing building with non-rated openings to separate the addition in lieu of a 4-hour fire wall
- · To not provide a smoke control system for the atrium • To permit the 1st floor of the addition to exceed allowable area for Type IIB Construction
- · To omit sprinklers over the pool To permit egress travel distance from the existing building to exceed code limit

Occupancy Classifications:

Educational use areas for high school students - E Occupancy [305.1]

Assembly uses accessory to Group E are not considered separate occupancies [303.1.3] Office - accessory occupancy less than 10% of the building area - B Occupancy [304.1, 508.2]

Construction Type:

Type IIB (noncombustible, unprotected) Construction - variance to be						
requested for 1 st floor of the	e a	ddition				
Existing building is Type II	ЗC	onstruct	ion	to remain		
Tabular Area:		14,500	sf	Table 503		
Frontage Increase:	+	5,500	sf	506.2		
Sprinkler Increase:	+	29,000	sf	506.3		
Allowable Area per floor:		49,000	sf			

82,127 sf - 1st floor Actual Area per floor: 48,911 sf - 2nd floor 39,560 sf - 3rd floor

Allowable Height: 3 stories permitted for Classroom Wing [504.2]

Fire Wall:

Variance approved to permit the exterior wall of the existing building with non-rated openings to separate the addition in lieu of a 4-hour fire wall [706, 506.2.2]

Occupancy Separations: Occupancy separations not required, based upon classification of assembly uses accessory to an educational occupancy as E Occupancy

areas [303.1.3] B Occupancy office areas are not required to be separated based upon

compliance as accessory occupancy[508.2]

Building Elements - Fire-resistive Requirements Building elements, including structural frame and roof are permitted to

be of noncombustible, unprotected construction [Table 601] Exterior walls of the additions are permitted to be nonrated, noncombustible, since having at least 10 feet of fire separation distance

[Table 602] Floor Openings and Penetrations, and Shafts:

Interior exit stairways connecting 3 floors are required to be enclosed with 1-hour fire barriers [1022.2] Exit access stairways in the atrium are permitted to be unenclosed [1009.3, exc. 5]

Ducts are permitted to connect up to 2 floor levels where floors are nonrated without shaft protection, where the annular space is filled with a noncombustible material [717.6.3] Ducts connecting 3 floor levels are required to be enclosed in a 1-hour

shaft, or be provided with a fire damper at each floor level [717.6.3] Noncombustible penetrating items (excluding ducts) are permitted to connect 3 floor levels where floors are nonrated without shaft protection,

where the annular space is filled with a noncombustible material [714.4.2.1]

Incidental Use Separations: Walls (non-rated) for these areas are required to terminate at the deck,

with self-closing doors - Science rooms containing any hazardous materials - Boiler and furnace rooms with equipment sized as indicated in Table

509 [Table 509, Sec. 509.4.2] Fire and/or smoke dampers are not required in duct penetrations of these non-rated separations

Fire Dampers:

Fire dampers are required at duct penetrations of fire-rated shafts and at duct penetrations of fire barriers required to have more than a 1-hour fire rating [717.5]

Occupant Load Factors: Pool deck, assembly spaces 15 sf per occupant Classrooms

Labs/Pool surface Office Storage/Mechanical

20 sf per occupant 50 sf per occupant 100 sf per occupant 300 sf per occupant

Egress Corridors: Egress corridors throughout the building are permitted to be nonrated based upon automatic sprinkler protection [1018.1]

Panic Hardware: Panic hardware is required on all means of egress doors serving an

occupant load of 50 or more [1008.1.10] Egress Travel Distance:

The maximum travel distance to an exterior exit is permitted to be a maximum of 250 feet [1016.2]

Automatic Sprinklers: Automatic sprinklers are required throughout, based upon an E Occupancy fire area exceeding12,000 sf - sprinklers will be provided throughout the building [903.2.3]

Standpipes:

Class I standpipes required in the 3-story addition, based upon having a floor level located more than 30 feet above the level of fire department vehicle access [905.3.1] The system is permitted to be a manual-wet system, with fire

department pumper providing the pressure for the system Fire Alarm System:

Fire alarm system required [907.2.3] Manual pull stations are not required based upon initiation of the alarm system by sprinkler water flow

Smoke Detectors:

Smoke detectors are required for HVAC shutdown for systems delivering in excess of 2,000 cfm [606.1, IMC] Smoke detection will be provided in the atrium [404]

Maximum Egress Travel Distance = 228 Feet

EXIT	EXIT / EXIT ACCESS
	NOT IN SCOPE OF WORK
—• —• —	2 HOUR FIRE-RATED WALL
	1 HOUR FIRE-RATED WALL
	SMOKE RESISTIVE WALL PER VARIANCE











PLAN - SECOND

FLOOR





LIFE SAFETY SUMMARY

Whiteland High School

Applicable Codes: 2014 Indiana Building Code 2014 Indiana Mechanical Code

2012 Indiana Plumbing Code

2009 Indiana Electrical Code 2010 Indiana Energy Conservation Code

General Administrative Rules (GAR)

2014 Indiana Fire Code ICC/ANSI A-117.1 Standard, 2009 Edition

Scope of Project:

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The project scope includes construction of a 3-story classroom wing, and renovation of a small portion of the existing building. The addition will have 82,127 sq ft on the 1st floor, 48,911 sq ft on the 2nd floor, and 39,560 sq ft on the 3rd floor. The addition will include a 3-story atrium adjoining the existing 2-story building. Renovation of the existing building will involve 3,380 sq ft on the 1st floor and 2,105 sq ft on the 2nd floor.

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- E Occupancy [305.1]

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Construction Ty

Construction Type:		
Type IIB (noncombustib	le, unprotected) Con	struction - variance to be
requested for 1 st floor of	the addition	
Existing building is Type	IIB Construction to r	remain
Tabular Area:	14,500 sf	Table 503

Frontage Increase:	+	5,500	sf	506.2
Sprinkler Increase:	+	29,000	sf	506.3
Allowable Area per floor:		49,000	sf	
Actual Area per floor:		82,127	sf - 1 st	^t floor
		48,911	sf - 2 ⁿ	^d floor
		39,560	sf - 3rd	ⁱ floor

Allowable Height:

3 stories permitted for Classroom Wing [504.2]

Fire Wall: Variance approved to permit the exterior wall of the existing building with non-rated openings to separate the addition in lieu of a 4-hour fire wall [706, 506.2.2]

Occupancy Separations: Occupancy separations not required, based upon classification of assembly uses accessory to an educational occupancy as E Occupancy areas [303.1.3]

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[1009.3, exc. 5] Ducts are permitted to connect up to 2 floor levels where floors are nonrated without shaft protection, where the annular space is filled with

a noncombustible material [717.6.3] Ducts connecting 3 floor levels are required to be enclosed in a 1-hour shaft, or be provided with a fire damper at each floor level [717.6.3] Noncombustible penetrating items (excluding ducts) are permitted to

connect 3 floor levels where floors are nonrated without shaft protection, where the annular space is filled with a noncombustible material [714.4.2.1]

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with self-closing doors - Science rooms containing any hazardous materials - Boiler and furnace rooms with equipment sized as indicated in Table

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Office

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department pumper providing the pressure for the system

Fire Alarm System: Fire alarm system required [907.2.3]

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Smoke Detectors:

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Maximum Egress Travel Distance = 207 Feet

EXIT	EXIT / EXIT ACCESS
	NOT IN SCOPE OF WORK
	2 HOUR FIRE-RATED WALL
	1 HOUR FIRE-RATED WALL
	SMOKE RESISTIVE WALL PER VARIANC

















A503





AIR CAVITY @ BRICK A: 2 1/8" AIR CAIVTY @ BRICK B: 2 5/8"

MASONRY PER ELEVATIONS THROUGH-WALL FLAHSING - GROUT SOLID AIR CAVITY BELOW THE FLASHING EXTEND BRICK 3 COURSES



METAL PANEL/BRICK INTERSECTION ACADEMIC WING 8 SCALE: 1" = 1'-0"

STOREFRONT PER ELEVATIONS 1/2" WOOD SHEATHING ON TOP OF TOP TRACK. TOP OF SHEATHING METAL WINDOW SILL WITH DRIP EDGE TO BE LEVEL WITH CONCRETE FLOOR -AIR/WATER RESISTIVE BARRIER 2X6 PRESERVATIVE TREATED FLOORING PER FINISH PLANS BLOCKING AS NEEDED SECOND FLOOR 14' - 0" TOP TRACK OF 6" STUD WALL MASONRY PER ELEVATIONS BENT PLATE — - 3" RIGID INSULATION CONCRETE FLOOR - 5/8" EXTERIOR GYPSUM SHEATHING STUD CLIP THROUGH-WALL FLASHING 6" METAL FRAMING DIAGONAL FRAMING TO STRUCTURE AS NEEDED -KINFE PLATE CONNECTED TO STRUCTURE / / 3-5/8" METAL FRAMING SEE STR FOR DETAILS WHEEPS AT BOTTOW ROW OF MASONRY 1/2" EXTERIOR GRADE WOOD SHEATHING **AIR/WATER RESISITIVE** BARRIER — \nearrow **3" RIGID INSULATION** STEEL ANGLE PER STR, PAINTED EIFS SHEATHING WITH LATH ATTACHED TO WOOD SHEATHING - ALUMINUM SCHLUTER REVEAL

5 VESTIBULE M100a SECTION @ 1ST FLOOR SCALE: 1" = 1'-0"

					- METAL SILL WITH DRIP EDGE
PARAPET DETAIL		SOLID SURFACE WINDOW SILL	6"		 2X6 PRESERVATIVE TREATED WOOD BLOCKING
3" RIGID INSULATION OVER AIRWATER RESISTIVE BARRIER NON-CONTINUOUS PRESERVATIVE TREATED WOOD BLOCKING. PART OF THE SUN SHADE ALTERNATE BID SECO THROUGH-WALL FLSHING WITH DRIP EDGE THROUGH-WALL FLSHING WITH DRIP EDGE PRESERVATIVE TREATED WOOD BLOCKING. PART OF THE SUN SHADE ALTERNATE BID SEALANT OVER BACKERROD, BOTH SIDES SPANDREL GLASS ON 3RD FACE	PND FLOOR 14'-0"	5/8" TYPE 'X' GYP BOARD 6" METAL STUDS @ 16" OC CONCRETE SLAB PER STR DRAWINGS OVER 10 MIL VAPOR BARRIER			 3" RIGID INSULARTION OVER AIR/WATER RESISTIVE BARRIER THROUGH-WALL FLAHSING WITH DRIP EDGE LIMESTONE PER ELEVATIONS GROUT SOLID AIR CAVITY BELOW THE FLASHING EXTEND BRICK 3 COURSES BELOW GRADE, TYP 3" RIGID INSULATION FOUNDATIONS PER STRUCTURAL DRAWINGS
ACOUSTICAL CEILNG GRID					
1ST FLOOR		1 FOUN SCALE: 1	NDAT " = 1'-0"	ION @	HINGE



OR 5 \cap \square С T C \mathbf{O} $\overline{}$ Q С S 4 Ζ \mathbf{C} NUMMO \square Ц Ц С WHITE () $\mathbf{\Sigma}$ S \square MAIN RX X \bigsqcup WHI⁻ 300 I \mathbf{O}













- STOREFRONT PER ELEVATIONS METAL WINDOW SILL WITH DRIP EDGE
- PRESERVATIVE TREATD WOOD BLOCKING
- MASONRY PER ELEVATIONS
- 3" RIGID INSULATION OVER **AIR/WATER BARRIER**
- THROUGH-WALL FLASHING WHEEPS AT BOTTOW ROW OF
- MASONRY
- STEEL ANGLE PER STR, PAINTED ALUMINUM TRIM
- SHIM AS NEEDED
- 7 SF21 HEAD & SILL DETAIL SCALE: 1" = 1'-0"

A731

September 26, 2023

Mr. Misha Belyayev Lancer Associates Architecture 145 N. East Street Indianapolis, IN 46204

RE: Whiteland Community High School Campus Improvements Phase 1 Summary of Civil Revisions – Addendum No. 003

Misha:

Please see below for our response to the RFI's received to date; as well as, a summary of the plan revisions, dated September 26, 2023, which are associated with Addendum No. 003 for the above referenced project:

<u>RFI:</u> how many underground detention systems are included in Phase 1?

Answer: Phase 1 includes one (1) proposed underground detention system consisting of 208 Stormtech MC-3500 chambers as manufactured by ADS. With that said, it should be noted that the project also includes installing new end caps, an outlet manifold, and an outlet structure on an existing Stormtech SC-740 system onsite as shown on the Drainage Plan (sheet 600). As shown on the civil plans, a new parking lot will be constructed over the existing Stormtech SC-740 system and the contractor will be responsible for preserving and protecting the chambers for the duration of construction while existing topsoil is stripped, fill material placed and compacted over the existing chambers, and the asphalt pavement section is installed.

<u>RFI</u>: *I* assist a sitework contractor whom is putting a bid together for the above referenced project your firm designed, we are needing clarification on the storm sewer pipe material referenced "PP pipe".

Answer: The storm sewer labeled "PP pipe" refers to polypropylene pipe described in the technical specifications Section 334200 – Stormwater Conveyance, Part 2 – Products, 2.4.

<u>RFI:</u> For the site concrete layout: You have site plans and details on L101, L102, L601, and L602 but you also have site plans and details on 301,302, 1001, and 1001. Some of the details and materials are conflicting. Which sheets should I refer to for correct locations of materials and details, etc.?

Answer: Bidders should refer to the Site Dimension Plans (sheets 301-302) and Miscellaneous Details (sheet 1000) from the civil plans for the straight curb ("C"), sloped curb ("C1"), and ADA curb ramp ("F") material tags and details. Bidders should refer to the Materials Plan (sheets L101-L102), Site Layout Plan (sheets L201-L202), and Site Details (sheets L601-L602) from Context's site design plans for the site concrete including concrete pavement, integral concrete curb and walk, seat walls, and stairs. In response to the RFI above, the civil plans have been revised as part of Addendum No. 003 as summarized below:

- Site Dimension Plan (sheets 301-302) the concrete sidewalk ("D") and integral concrete curb & sidewalk ("D1") tags have been replaced with the concrete type 01 ("P01") tags to match the Materials Plan (sheets L101-L102) prepared by Context. The typical concrete section ("G") tag has also been replaced with the concrete, heavy duty, 6" with rebar ("P03") tag.
- **Miscellaneous Details (sheet 1000)** the flush integral curb & sidewalk ("D2") and typical concrete pavement section ("G") details have been deleted. Bidders shall refer to the Site Details (sheet L601) prepared by Context.

In addition to the revisions above, the following plan sheets have also been revised as part of Addendum No. 003:

- **Utility Plan (sheet 400)** revised invert elevation of existing 8" roof drain connecting to Str. No. 38 from north based test hole data.
- **Grading Plan (sheet 500)** revised to indicate that a 6" tall curb is required along the south side of the concrete walk near the south natatorium entrance.
- **Grading Plan (sheet 501)** revised to more clearly indicate that a transition from 0" to 6" curb height is required on both ends of the A.D.A. parking spaces.

Please find the revised construction plans enclosed. Please feel free to contact me at 317-780-1555 ext. 135 or <u>dsnyder@crossroadengineers.com</u> if you have any questions or need additional information on these subjects.

Sincerely, CrossRoad Engineers, P.C.

Dut M. Singen

Derek M. Snyder, P.E. Project Engineer

PROPOSED	
(3) PSL PSL PSL PSL 1	PROPERTY LINE SECTION LINE PHASE LINE SETBACK LINE EASEMENT LINE FENCE LINE DITCH LINE SANITARY SEWER WITH MANHOLE SANITARY SEWER LATT WITH CLEANOUT STORM SEWER W/MAN
PE PE PE PV PV PV FIRE FIRE IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	& END SECTION ELECTRIC LINE WATER LINE FIRE SUPPRESSION LIN STORM INLETS STORM CURB INLETS
O O F	AQUA-SWIRL UNITS WATER TEE 90° BEND
111	45° BEND 22.5° BEND 11.25° BEND
کر ۳۰	WATER VALVE FIRE HYDRANT
	WATER PLUG ELECTRIC TRANSFORM
<u>EB</u>	ELECTRIC PULL BOX SIGN

400

SHEET

SLOPE U.S. INV. 2.05% 798.28 795.20 2.02% 1.13% 790.70 798.20 2.00% 2.00% 796.70

EXISTING LEGEND

{[]]	POWERPOLE		800)		CONTOURS
-00	POWERPOLE W/RISER					PROPERTY LINE
<u>0</u> -8-	POWERPOLE W/LIGHT					SECTION LINE
Ωď	, LIGHT POLE					RIGHT-OF-WAY
$\widehat{\bigcirc}$	ELECTRIC METER					EASEMENT
EB	ELECTRIC BOX					ADJOINER LINE
-¥-	YARD LIGHT					PAVEMENT LINE
€-	GUIDE WIRE		~~~~~~~~~~~	~~~~~~	~~~~~~~~~	FIELD LINE
(\overline{t})	TELEPHONE MANHOLE	(o		□ ——	PRIVACY FENCE
TR	TELEPHONE RISER		O		-0	CHAINLINK FENCE
	WATER VALVE	/	/	_ / _	/	SPLIT RAIL FENCE
`б́	FIRE HYDRANT					DITCH
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\bigcirc	WATER METER	— G —	G	— G —	G	GAS LINE
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\bigcirc	GAS METER		₩		W	WATER LINE
	CABLE TV RISER	CTV-	CTV	— CTV—	CTV	CABLE TV LINE
FD	FIBER OPTIC BOX	— E —	— E —	— E —	— E —	ELECTRIC LINE
(\bigcirc)	CLEANOUT	DH	J OHI	J	OHU ———	OVERHEAD UTILITY LINE
	SIGN	\sim	\sim	\sim		TREE LINE
	STORM ROUND INLET	(i)				SANITARY SEWER
CHEH	STORM CURB INLET	-				W/MANHOLE
\boxtimes	RIGHT-OF-WAY MARKER	(st)				STORM SEWER W/
}₽	TREE, BUSH & STUMP					MANHOLE & END SECTION
		(D)	DEED	(M) N	IEASURE	(PS) PLAT SURVEY
Ψ	IEMP. BENUMMAKK		ASPHALT		BUILDIN	IG
		40	GRAVEL			

UTILITIES NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC AND PROVIDING ALL NECESSARY FLAGMAN, BARRELS, SIGNAGE, ETC. DURING CONSTRUCTION. ALL APPLICABLE M.U.T.C.D. STANDARDS SHALL GOVERN THIS WORK. CONTRACTOR SHALL REFER TO THE ELECTRICAL SITE PLAN PREPARED BY PRIMARY ENGINEERING, INC. FOR PARKING LOT LIGHTING AND SPECIFICATIONS. ALL STORM SEWER CASTINGS SHALL BE NPDES PHASE II COMPLIANT. CASTINGS SHALL BE MANUFACTURED WITH A STATEMENT SAYING: "DUMP NO WASTE, DRAINS TO RIVER" IN $\frac{1}{2}$ " RAISED LETTERS.
- ALL FIELD TILES DISTURBED DURING CONSTRUCTION MUST BE REPAIRED/CONNECTED TO NEW STORMWATER FACILITIES. CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING UNDERGROUND STORMWATER DETENTION CHAMBERS DURING THE ENTIRE DURATION OF THE PROJECT. CONTRACTOR
- SHALL COORDINATE WITH ADVANCED DRAINAGE SOLUTIONS, INC. (ADS) TO DETERMINE THE MINIMUM COVER REQUIRED OVER THE EXISTING CHAMBERS DURING CONSTRUCTION, AS WELL AS, THE APPROPRIATE EQUIPMENT AND OPERATIONS TO PROTECT THE CHAMBERS. WATER MAIN INSTALLATION AND MATERIALS SHALL CONFORM TO THE TOWN OF WHITELAND TYPICAL CONSTRUCTION GUIDELINES AND DETAILS.
- TAPPING SLEEVES AND VALVES SHALL BE EJP OR MUELLER H-615, H-616 OR STAINLESS STEEL SLEEVES. TAPPING VALVES SHALL BE 2360 SERIES BY MEULLER OR AFC 2500. FIRE HYDRANT ASSEMBLIES SHALL BE SUPER CENTURION 250 HYDRANT BY MEULLER CO. WITH STORZ FITTING ON STEAMER WITH 5'-6" MIN. BURIAL DEPTH. ALL FITTINGS SHALL BE DUCTILE IRON (D.I.) WITH MECHANICAL JOINTS (M.J.) CONFORMING
- TO AWWA C-110, C-111, C-153, AND NSF-61. ALL WATER MAIN FITTINGS SHALL BE RESTRAINED IN ACCORDANCE WITH THE TOWN OF WHITELAND TYPICAL CONSTRUCTION GUIDELINES AND DETAILS. MEG-A-LUG RETAINER GLANDS BY EBBA IRON, INC., FIELD-LOK GASKETS, OR ONE BOLT
- RESTRAINED FITTINGS SHALL BE USED ON EACH SIDE OF FITTINGS WHERE THE WATER MAIN CHANGES DIRECTION. CONTRACTOR SHALL COORDINATE CONSTRUCTION SEQUENCE WITH THE OWNER AND SKILLMAN CORPORATION AND MAINTAIN ACTIVE UTILITY SERVICES AT ALL TIMES. ALL
- TEMPORARY UTILITY SERVICE INTERRUPTIONS MUST BE APPROVED BY THE OWNER AND SKILLMAN CORPORATION PRIOR TO INSTALLATION OF IMPROVEMENTS. EXISTING UTILITY SIZE AND MATERIAL INFORMATION SHOWN ON THESE PLANS ARE PER THE BEST GRAPHICAL AND VISIBLE INFORMATION AVAILABLE. CONFLICTS MAY EXIST AND 17 SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY ALL SIZING AND MATERIAL
- INFORMATION PROVIDED. IF ACTUAL CONDITIONS DIFFER FROM THAT INFORMATION SHOWN ON THE PLANS, THE CONTRACTOR SHALL, PRIOR TO THE INSTALLATION OF ANY PROPOSED INFRASTRUCTURE, NOTIFY THE DESIGN ENGINEER IMMEDIATELY. CONTRACTOR SHALL CONNECT ROOF DRAINS TO STR. NO. 38, 44, 49, 51, AND 58 AS SHOWN. CONFIRM ROOF DRAIN LOCATIONS, DIAMETERS, AND INVERT ELEVATIONS EXITING
- THE BUILDING WITH THE MEP PLANS PRIOR TO CONSTRUCTION. CONTRACTOR SHALL CONFIRM SANITARY LATERAL LOCATIONS, DIAMETERS, AND INVERT ELEVATIONS EXITING THE BUILDING WITH THE MEP PLANS PRIOR TO CONSTRUCTION.

3'-0", refer to manufacturer recommendations

1% Slope, typ.

+

4000 PSI Concrete

- -----

Scale: 3/4" = 1'-0"

Flagpole, See Specs. ———

Expansion Joint, typ. w/ ------

4,000 psi C.I.P. Concrete —

Sealant

Ground Sleeve _____

Factory Collar —

06

/2\

#4 Rebar reinforcement, 18" O.C. both

from edge of pavement

directions. Centered in slab and 3" min.

#53 Compacted stone, 3" lifts

Subgrade Compacted to 95%

CONCRETE, HEAVY-DUTY, 6" w/ REBAR

<u>NOTES:</u>
 Provide expansion joints at intersection with another sidewalk, between walks and building slabs, and at other points as indicated on the drawings.

2. Refer to plan drawings for locations of control and expansion joints.

— Proposed finish grade,

Adjacent material,

See Plans

hold down 1"

Top of —

Pavement

02 CONCRETE JOINTING Not to Scale

 #5 smooth bar, 12" long, 18" o.c., centered in slab, grease one end EXPANSION JOINT As indicated on plan drawings. Place expansion joints where concrete pours meet and anywhere concrete patching is required.

Straight, true sawn joint

SAWN CONTROL JOINT

— 3/8" tooled joint

As indicated on plan drawings. Continue to

Brush out marks from trowel on either side of

joint, leaving only the joint scored smooth.

<u>NOTE:</u> Expansion joint material shall be "Zip-Strip" _ 3/8" deep, typ expansion material with removable cap by Heel-grade sealant, Refer to Specs.

DRAWN BY: KK / CCH Site Details

L601

1 EX. JOIST REINFORCING PLAN S102AGH SCALE: 1/16" = 1'-0"

Primary Engineering, Inc. 9785 Crosspoint Blvd., Ste. 103 Indianapolis, Indiana 46256 317-324-1221 ph www.primary-eng.com

Addendum:	3
Date:	09/26/23
Project:	Clark-Pleasant Community School Corp. Whiteland Comm. High School Addition

Comm #: 22417

The following items shall be incorporated into the specifications and drawings and are considered to be integral to the bid documents for the project. Acknowledgement of receipt of this addendum is required on the bid form.

Item #1: Specification Section 089119, "Fixed Louvers".

- A. Add Part 2.3 A.g: Louvers and Dampers
- B. Add Part 2.3 B.g: Louvers and Dampers
- C. Add Part 2.3 C.g: Louvers and Dampers

Item #2: Specification Section 223400, "Fuel-Fired, Domestic-Water Heaters".

- A. Add Part 2.3 A.1.e: Taco Comfort Solutions; a Taco Family Company
- B. Add Part 2.3 A.1.f: Grundfos

Item #3: Specification Section 232116, "Hydronic Piping Specialties".

- A. Add Part 2.2 C.1.f: Taco Comfort Solutions; a Taco Family Company
- B. Add Part 2.2 C.1.g: Grundfos
- C. Add Part 2.3 A.1.e: Taco Comfort Solutions; a Taco Family Company
- D. Add Part 2.3 A.1.f: Grundfos

Item #4: Specification Section 232123, "Hydronic Pumps".

- A. Add Part 2.2 A.4: Taco Comfort Solutions; a Taco Family Company
- B. Add Part 2.2 A.5: Grundfos
- C. Add Part 2.3 A.4: Taco Comfort Solutions; a Taco Family Company
- D. Add Part 2.3 A.5: Grundfos
- E. Add Part 2.4 A.3: Taco Comfort Solutions; a Taco Family Company
- F. Add Part 2.4 A.4: Grundfos
- G. Add Part 2.5 A.3: Taco Comfort Solutions; a Taco Family Company
- H. Add Part 2.5 A.4: Grundfos

Item #5: Specification Section 235700, "Heat Exchangers for HVAC".

- A. Add Part 2.2 A.5: Taco Comfort Solutions; a Taco Family Company
- B. Add Part 2.2 A.6: Grundfos

Item #6: Specification Section 236513.13, "Open-Circuit, Forced-Draft Cooling Towers".

A. Add Part 2.1 A.4: Reymsa

Item #7: Specification Section 237223.23, "Packaged, Outdoor, Heat Wheel Energy Recovery Units".

- A. Add Part 2.2 A.3: Daikin
- B. Add Part 2.2 A.4: Addison
- C. Add Part 2.2 A.5: Trane

Item #8: Specification Section 237343.16, "Outdoor, Semi-Custom Air-Handling Units".

- A. Add Part 2.2 A.3: York
- B. Add Part 2.2 A.3: VTS
- C. Add Part 2.2 A.3: Trane

Item #9: Specification Section 238146.13, "Water-to-Air Heat Pumps".

- A. Add Part 2.1 A.5: York
- B. Add Part 2.1 A.6: Daikin

Item #10: Specification Section 238146, "Water-Source Unitary Heat Pumps".

- A. Add Part 2.2 A.5: York
- B. Add Part 2.2 A.6: Daikin

Item #11: Specification Section 238416.13, "Outdoor, Mechanical Dehumidification Units".

- A. Add Part 2.1 A.3: Aaon
- B. Add Part 2.1 A.4: Seresco
- C. Add Part 2.1 A.5: Desert Aire
- D. Add Part 2.1 A.6: Poolpak

Item #12: Drawing Sheet P002.

A. Add piping demolition. Refer to attached drawing revision.

Item #13: Drawing Sheet P100M.

A. Add SEP-1. Refer to attached drawing revision.

Item #14: Drawing Sheet P101AGH.

A. Revise piping. Refer to attached drawing revision.

Item #15: Drawing Sheet P101M.

A. Add SEP-1. Refer to attached drawing revision.

Item #16: Drawing Sheet P403.

A. Add Typical Sump Pump Detail. Revise Domestic Hot Water Flow Diagram. Refer to attached drawing revision.

Item #17: Drawing Sheet P501.

A. Add Ejector Pump Schedule. Refer to attached drawing revision.

Item #18: Drawing Sheet M504.

- A. Hydronic Pump Schedule: revise CTP-1 and CTP-2 selection. Refer to attached drawing revision.
- B. Variable Speed Drive Schedule: revise VSD-CTP-1 and VSD-CTP-2 selection. Refer to attached drawing revision.

Item #19: Drawing Sheet E201M

A. Rm. M101: Added SEP-1 and associated control panel. Refer to supplemental information drawing E201M.

Item #20: Drawing Sheet E601

A. Revised CT-2, CTP-1, & CTP-2 on riser diagram. Refer to supplemental information drawing E601.

Item #21: Drawing Sheet E701

- A. Equipment Schedule: Revised horsepower rating of CTP-1 & CTP-2. Refer to supplemental information drawing E701.
- B. Equipment Schedule: Added SEP-1 to schedule. Refer to supplemental information drawing E701.

Item #22: Drawing Sheet E705.

A. Revised panel 1LK1. Refer to supplemental information drawing E705 for additional information.

SCALE: 1/16" = 1[']-0"

SCALE: 3/32" = 1'-0"

SCALE: 1/8" = 1'-0"

SCALE: 1" = 1'-0" SCALE: 1/4" = 1'-0" SCALE: 1/2" = 1'-0" SCALE: 3/4" = 1'-0"

SCALE: 3/32" = 1'-0"

SCALE: 1/8" = 1'-0"

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Fort Wayne Indianapolis 2828 Lake Ave. 9785 Crosspoint Blvd., Suite 103 Fort Wayne, Indiana 46805 260.424.0444 ph 317.324.1221 ph info@primary-eng.com www.primary-eng.com All concepts, ideas, plans, and details as shown on this document are the sole

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TRUE NORTH

UNLESS NOTED OTHERWISE, IN SPACES WITH NO CEILINGS OR WITH CEILING CLOUDS, PROVIDE AND INSTALL WHITE PAPER ASJ ON ALL PIPING INSULATION FOR FIELD PAINTING BY GENERAL CONTRACTOR. COORDINATE WITH GENERAL CONTRACTOR. COLOR SELECTION BY ARCHITECT. REFER TO ARCHITECTURAL DRAWINGS FOR MORE INFORMATION.

X

PLAN NOTES

- PROVIDE AND INSTALL DOMESTIC HOT WATER BALANCING STATION. ADJUST FLOW TO GPM SHOWN. REFER TO MANUAL HOT WATER RETURN BALANCING STATION DETAIL ON DRAWING SHEET P401 FOR MORE INFORMATION.
- ROUTE FULL SIZE DOMESTIC, SANITARY, AND VENT PIPING ENTIRE LENGTH OF CHASE AND DISTRIBUTE TO NEW PLUMBING FIXTURES. REFER TO PLUMBING FIXTURE SCHEDULE ON PLUMBING SHEET P501 FOR CONNECTION SIZES.
- ALL MATERIALS FOR PLUMBING THIS ROOM SHALL BE CORROSION RESISTANT. REFER TO SPECIFICATIONS.
- ROUTE 3" DOMESTIC RAW COLD WATER AND 1" BYPASS TO POOL FILL FUNNEL. PLUMBING CONTRACTOR SHALL INSTALL (2) AUTOMATIC CONTROL VALVES, FURNISHED BY POOL CONTRACTOR. REFER TO POOL FILL DETAIL ON DRAWING SHEET P401 FOR MORE INFORMATION. COORDINATE WITH POOL CONTRACTOR. 5. WATER METER WALL-MOUNTED REMOTE DISPLAY.

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PRIMARY JOB # 22417

TRUE NORTH

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TO BUILDING

		•	THER	MOST	ΤΑΤΙ	C MI	XING	i VALV	/E SO	CHED	ULE	
TAG	MFR.	MODEL	MIN FLOW (GPM)	MAX FLOW (GPM)	P.D. (PSI)	INLETS (IN)	OUTLET (IN)	SETPOINT (DEG F)	ASSE CERT.	CABINET	SERVICE	REMARKS
TMV-1	LAWLER	802	2	39	10	1	1 1/4	120	1017	NA	DOMESTIC HOT WATER	1, 2
TMV-2	LAWLER	802	2	39	10	1	1 1/4	120	1017	NA	DOMESTIC HOT WATER	1, 2
TMV-3	LAWLER	6625	3.75	12	10	3/4	3/4	110	1017	SS	LOCKER ROOM SHOWERS	1, 2, 3
TMV-4	LAWLER	911 - 84708	25	35	10	1 1/4	1 1/4	85	1071	NA	MECH M101	4
TMV-5	LAWLER	911 - 84708	25	35	10	1 1/4	1 1/4	85	1071	NA	BOILER ROOM	4
TMV-6	LAWLER	911 - 84708	25	35	10	1 1/4	1 1/4	85	1071	NA	PREP J313	4
TMV-7	LAWLER	911 - 84708	25	35	10	1 1/4	1 1/4	85	1071	NA	PREP K305	4
TMV-8	LAWLER	911 - 84708	25	35	10	1 1/4	1 1/4	85	1071	NA	SCIENCE LAB K303	4
TMV-9	LAWLER	911 - 84708	25	35	10	1 1/4	1 1/4	85	1071	NA	SCIENCE LAB K301	4
TMV-10	LAWLER	911 - 84708	25	35	10	1 1/4	1 1/4	85	1071	NA	SCIENCE LAB J317	4
REMARKS	S:											
1. MAINTA	AIN SETPOINT	TEMPERATURE T	O WITHIN 3 [DEG F, DOWN	N TO A M	INIMUM FL	OW RATE	OF 0.5 GPM				
2. PROVIE	DE AND INSTAI	L WITH INTEGRA	L CHECK ST	OPS.								
3. PROVIE	DE AND INSTAI	L WITH INTEGRA	L BALL VALV	ES, PIPE UNI	ONS, TH	ERMOMET	ER, AND S	FAINLESS STE	EEL CABIN	IET.		
4. SHALL	COMPLY WITH	ANSI Z358.1, FA	IL TO FULL C	OLD FLOW, N	MAINTAIN	+/- 3 DEG	à.					

	PLUMBING PUMP SCHEDULE										
TAG	MFR.	MODEL	FLOW (GPM)	HEAD (FT)	MOTOR (HP)	MOTO R (BHP)	EFF (+/- 5%)	RPM	ELEC (V/PH)	SERVICE	REMARKS
HWRP-1	BELL & GOSSETT	ECOCIRC XL 110-180	6	55	3.0	-	-	2880	460/3	DOM HW 140 RECIRC	1, 2, 3
HWRP-2	BELL & GOSSETT	E-90 1AAB	30	100	3	1.54	-	3360	460/3	DOM HW 110 RECIRC	1, 2, 3
REMARKS	S:					ł			1		
1. ALL LE	AD-FREE BRONZE OF	R STAINLESS STEEL COM	NSTRUC ⁻	FION.							
2. PROVIE	DE AND INSTALL WITH	H STRAP-ON AQUASTAT	SENSOF		TO CON	TROL PU	MP, ON A	T 100 DEC	G F/OFF AT	120 DEG F.	
3. PROVIE	DE AND INSTALL WITH	H ISOLATION BALL VALV	ES, DISC	HARGE	CHECK V	ALVE, M	ANUAL BA	ALANCE V	ALVE, AND	PRESSURE TAPS IN AN	D OUT.

	INTERCEPTOR SCHEDULE											
TAG	MFR.	MODEL	SERVICE	LIQ CAP (GAL)	MAX WATER TEMP (DEG F)	SIZE LxWxH (IN)	PIPE CONN (IN)	REMARKS				
ANT-1	STRIEM	LB-275	SCIENCE LABS	250	140	68 x 33 x 51-1/2	4	1, 2				
ANT-2	STRIEM	LB-15	BOILERS	15	140	25 x 19 x 14-1/4	2	1, 2				
ANT-3	STRIEM	LB-15	POOL HEATER	15	140	25 x 19 x 14-1/4	2	1, 2				
REMARK	S: DE AND INSTAL	L WITH FULL	TANK OF MINIMU	M 90% CALCI			 IA.					

1. PROVIDE AND INSTALL WITH FULL TANK OF MINIMUM 90% 2. REFER TO DRAWING DETAILS FOR MORE INFORMATION.

	BACKFLOW PREVENTER SCHEDULE											
TAG	MFR.	MODEL	SERVICE	ТҮРЕ	SIZE (IN)	STRAINER	REMARKS					
RPBP-1	WILKINS	375-FSC-OSY	DOMESTIC	REDUCED PRESSURE	4	YES	1, 2, 3					
RPBP-2	WILKINS	375-FSC-OSY	DOMESTIC	REDUCED PRESSURE	4	YES	1, 2, 3					
REMARK	S:											
1. SHALL	MEET REQUIR	EMENTS OF NSF/A	NSI 61 FOR LEAD	FREE POTABLE SERVIC	E.							
2. PROVI	DE WITH AIR GA	AP DRAIN CUP ASS	EMBLY, PIPED TO	d floor drain.								
3. PROVI	DE WITH EXPO	Y COATED WATER	R WAY.									

				1	EJE					JULE			1
	TAG	MFR.	MODEL	FLOW (GPM)	HEAD (FT)	RPM	DISCH. SIZE (IN)	MAX SOLID DIA. (IN)	MOTOR (HP)	ELEC (V/PH)	PIT DIMS. (DIA x DEPTH)	TYPE	REMARKS
	SEP-1	ZOELLER	6161	20	50	3450	1 1/2	3/4	1/2	115/1	36"x264"	DUPLEX	1,2
R 1 2	Remarks . Provid 2. Provid	5: DE AND INSTALL DE AND INSTALL	PACKAGED DU WITH PIT WITH	PLEX SYS STEEL LID	TEM WITH D, SERVICE	CONTROL ACCESS I	PANEL AND H HATCH, AND S	HIGH LEVEL AUD SERVICE RAILS.	IO/VISAL AL/	ARM WITH SI	LENCE BUTTON. PRO	DIVDE CONTA	CTS FOR BMS.

TAG	MFR.	MODEL	TRIM MFR.	TRIM MODEL	FLOW RATE (GPF OR GPM)	TRIM TYPE	WASTE	VENT	cw	HW	COLOR
WC-1	AMERICAN STD.	2257.101	SLOAN	ROYAL 111	1.6	MANUAL FLUSH VALVE	3"	2"	1"	-	WHITE
WC-1H	AMERICAN STD.	2257.101	SLOAN	ROYAL 111	1.6	MANUAL FLUSH VALVE	3"	2"	1"	-	WHITE
UR-1	AMERICAN STD.	6590.001	SLOAN	ROYAL 186	0.5	MANUAL FLUSH VALVE	2"	1-1/4"	1"	-	WHITE
UR-1H	AMERICAN STD.	6590.001	SLOAN	ROYAL 186	0.5	MANUAL FLUSH VALVE	2"	1-1/4"	1"	-	WHITE
L-1H	AMERICAN STD.	0355.012	CHICAGO	802-E34-1000XKABCP	1.5	2" WING HANDLES	1-1/4"	1-1/4"	1/2"	1/2"	WHITE
L-2H	AMERICAN STD.	0355.012	CHICAGO	802-665ABCP	2.2	METERING PUSH HANDLE	1-1/4"	1-1/4"	1/2"	1/2"	WHITE
SK-1H	ELKAY	LRAD331955	CHICAGO	1100-317XKABCP	2.2	4" WRISTBLADE	2"	1-1/2"	3/4"	3/4"	STAINLESS
SK-2H	ELKAY	ELUHAD141445	CHICAGO	526-XKABCP	2.2	2-3/8" LEVER HANDLES	2"	1-1/2"	3/4"	3/4"	STAINLESS
SK-3H	ELKAY	ELUHAD211545PD	CHICAGO	LWM2-B11-F	2.2	2-1/2" CROSS HANDLES	2"	1-1/2"	3/4"	3/4"	STAINLESS
SK-4H	-	-	-	-	-	-	2"	1-1/2"	3/4"	3/4"	-
SK-5H	-	-	CHICAGO	943-317CP	2.2	4" WRISTBLADE	2"	1-1/2"	3/4"	3/4"	CHROME
WF-1H	BRADLEY	LVRD2	CHICAGO	(2) 802-665ABCP	2.2	METERING PUSH HANDLE	1-1/2"	1-1/2"	3/4"	3/4"	-
WF-2H	BRADLEY	LVRD3	CHICAGO	(3) 802-665ABCP	2.2	METERING PUSH HANDLE	1-1/2"	1-1/2"	3/4"	3/4"	-
EWC-1H	ELKAY	EMABFDWSSK	-	SINGLE W/ BOTTLE FILL	-	MECH VALVE	1-1/4"	1-1/4"	1/2"	-	STAINLESS
EWC-2H	ELKAY	EMABFTL8WSSK	-	HIGH-LOW W/ BOTTLE FILL	-	MECH VALVE	1-1/4"	1-1/4"	1/2"	-	STAINLESS
SH-1	-	-	SYMMONS	H901S	2.0	HYDA PIPE	2"	1-1/2"	1/2"	1/2"	STAINLESS
SH-1H	-	-	SYMMONS	H902S	2.0	ADA HYDA PIPE	2"	1-1/2"	1/2"	1/2"	STAINLESS
SH-2H	-	-	SYMMONS	H902S	2.0	ADA HYDA PIPE	2"	1-1/2"	1/2"	1/2"	STAINLESS
MSB-1	FIAT	MSB2424	CHICAGO	(1) 897-CP & (1) 998-RCF	1.5	DUAL HANDLE	3"	1-1/2"	1/2"	1/2"	WHITE
SS-1	FIAT	SF1W	CHICAGO	526-XKABCP	2.2	2-3/8" LEVER HANDLES	2"	1-1/2"	3/4"	3/4"	WHITE
SS-2	FIAT	FL1	CHICAGO	526-XKABCP	2.2	2-3/8" LEVER HANDLES	2"	1-1/2"	3/4"	3/4"	WHITE
EDS-1	HAWS	8336	-	-	20	-	-	-	-	1-1/4"	PVC
WH-1	WOODFORD	B67	-	-	-	WALL RECESSED	-	-	3/4"	-	CHROME
RH-1	WOODFORD	SRH-MS	-	-	-	ROOF HYDRANT	-	-	3/4"	-	PAINTED
HB-1	CHICAGO	998-RCF	-	-	-	-	-	-	3/4"	-	CHROME
WB-1	IPS CORP	AB1200HA	82930	-	-	-	-	-	1/2"	-	WHITE
WB-2	IPS CORP	MB1200HA	82914	-	-	-	2"	-	1/2"	1/2"	WHITE
FD-1	JR SMITH	2005Y-A05	CAST IRON	2692 TRAP SEAL	-	ROUND TOP	-	-	-	-	NIKALOY
FD-2	JR SMITH	2005Y-F37	CAST IRON	2692 TRAP SEAL	-	EXTENDED RIM	-	-	-	-	NIKALOY
FS-1	JR SMITH	3100Y	CAST IRON	2692 TRAP SEAL	-	-	-	-	-	-	NIKALOY
FS-2	JR SMITH	305	PLASTIC	2692 TRAP SEAL	-	-	-	-	-	-	PVC
CO-1	JR SMITH	4024S	CAST IRON	-	-	FLOOR ROUND	-	-	-	-	NIKALOY
CO-2	JR SMITH	4254S	CAST IRON	-	-	EXTERIOR	-	-	-	-	CAST IRON
CO-3	JR SMITH	4532Y-SS	CAST IRON	-	-	WALL W/COVER	-	-	-	-	STAINLESS
CO-4	JR SMITH	4422-SS	CAST IRON	-	-	END FERRULE	-	-	-	-	CAST IRON
RD-1	JR SMITH	1010Y-AD-RDP	ALUM	-	-	-	-	-	-	-	CAST IRON
ORD-1	JR SMITH	1080Y-AD-RDP	ALUM	-	-	-	-	-	-	-	CAST IRON
TD-1	DURA TRENCH	DTPF2	SHOWER	ADA STAINLESS HEELPROOF GRATE	-	-	2"	-	-	-	STAINLESS
TD-2	DURA TRENCH	DTPF2	NATATORIUM	ADA PLASTIC	-	-	2"	-	-	-	GRAY
TD-3	DURA TRENCH	DTPF18	COOLING TOWER	DUCTILE IRON SLOTTED	-	-	4"	-	-	-	DUCTILE IRO
GT-1H	-	-	CHICAGO	981-909-957-3KAGV	-	NATURAL GAS	-	-	-	-	CHROME
GT-2H	-	-	CHICAGO	981-909-957-3KAGV	-	COMPRESSED AIR	-	-	-	-	CHROME
GT-3H	-	-	CHICAGO	986-WSV909AGVSAM	-	NATURAL GAS	-	-	-	-	CHROME
GT-4H	-	-	CHICAGO	986-WSV909AGVSAM	-	COMPRESSED AIR	-	-	-	-	CHROME

PROVIDE AND INSTALL WITH CHICAGO LOOSE KEY ANGLE STOP AND SUPPLY RISER.
 PROVIDE AND INSTALL WITH OFFSET DRAIN AND INSULATION KIT ON ALL WASTE AND SUPPLY PIPING. TRUEBRO OR APPVD EQUAL.

PROVIDE AND INSTALL WITH 17 GA. CAST BRASS P-TRAP W/ CO AND GRID STRAINER.
 PROVIDE AND INSTALL WITH CERAMIC CARTRIDGES.

PROVIDE AND INSTALL WITH ORION BLUELINE POLYPROPYLENE P-TRAP W/ CO AND GRID STRAINER.
 INTEGRAL FIXTURE PROVIDED WITH CASEWORK. COORDINATE WITH GC.

9. COLOR SELECTION BY ARCHITECT.
 10. PROVIDE WATER COOLER WITHOUT ANY INLINE FILTERS.

PROVIDE AND INSTALL WITH SINGLE SUPPLY METERING SHUTOFF.
 PROVIDE AND INSTALL WITH SINGLE SUPPLY MANUAL SHUTOFF,

13. PROVIDE AND INSTALL WITH PRESSURE BALANCING DUAL SUPPLY MANUAL SHUTOFF,

PROVIDE AND INSTALL WITH 60" HOSE AND HAND SHOWER, FIXED HEAD SHOWER, DIVERTING VALVE, INTEGRAL SERVICE STOPS, AND 30" SLIDEBAR.
 PROVIDE AND INSTALL WITH STAINLESS STEEL STRAINER, STAINLESS STEEL BUMPER GUARDS, STAINLESS STEEL WALL GUARD, MOP BRACKET, HOSE, AND CHICAGO SILLCOCK 998-XKRCF. REFER TO DRAWING DETAILS FOR MORE INFORMATION.
 PROVIDE AND INSTALL WITH INTEGRAL PISTON TYPE WATER HAMMER ARRESTOR(S).
 REFER TO PLANS FOR SIZES.

NOTES: 1. "-H" DESIGNATES HANDICAP ACCESSIBLE FIXTURES.

GAS WATER HEATER SCHEDULE

G	MFR.	MODEL	TANK MODEL	TANK VOL (GAL)	TANK DIM (DIA x HT)	EFF (%)	GAS INPUT (MBH)	RECOVERY (GPH)	BURNER TURNDOW N	NAT GAS PRES	GAS CONN (IN)	WATER CONN (IN)	FLUE CONN (IN)	FLUE MATL.	WT. (LB)	ELEC (V/PH)	ELEC (AMPS)	R
H-3	LOCHINVAR	AWH0800NPM	-	-	-	98	800	950	10:1	4 - 11	1-1/4	2	6	POLYPROPYLENE	433	120/1	9.4	1, 2, 3
RKS:																		

1. PROVIDE AND INSTALL WITH T&P RELIEF VALVE.

ALL TANKS SHALL BE ASME STAMPED.
 PROVIDE WITH CONDENSATE NEUTRALIZATION KIT.

4. PROVIDE WITH CON-X-US REMOTE CONNECTIVITY KIT.

5. PROVIDE WITH TANK RECIRCULATION PUMP SELECTED FOR 12 TO 15 GRAINS RANGE FROM MFR, WIRED TO PUMP CONTROL RELAY ON WATER HEATER. 6. INSTANTANEOUS FLOW RATE AT 67 DEG TEMP RISE.

7. PROVIDE WITH DESCALING/FLUSHING KIT WITH 5 GAL BUCKET, SUMP PUMP, (2) STAINLESS BRAIDED HOSES WITH HOSE CONNECTIONS, (1) GALLON DESCALER SOLUTION. 8. PROVIDE WITH FLUSHING PIPE CONNECTION FITTINGS AT INLET AND OUTLET OF HEATER TO ALLOW DESCALING WITHOUT BREAKING PIPE CONNECTIONS.

	WATER SOFTENER SCHEDULE														
TAG	MFR.	MODEL	ТҮРЕ	MAX FLOW (GPM)	NOM. FLOW (GPM)	DAILY WATER USAGE (GPD)	MAX WPD (PSI)	RESIN CAPACITY (GRAINS/TANK)	RESIN VOLUME (CU.FT./TANK)	SALT STORAGE (LBS)	INCOMING HARDNESS (GRAINS)	INCOMING IRON (PPM)	REGEN. EFF.	ELEC (V/PH)	
WS-1	CULLIGAN	CSM 600-3 PF	DUPLEX ALT.	600	400	15,000	15	600,000	20	300	22	0.08	2	120/1	
REM/	EMARKS:														

PROVIDE AND INSTALL WITH DEMAND USE REGENERATION WITH ULTRASONIC FLOW METERS AND FULLY ELECTRONIC CONTROLS.
 FLOW METERS SHALL BE ULTRASONIC STYLE WITH MINIMUM PIPE DIAMETER REQUIREMENTS. DO NOT USE TURBINE WHEELS.

3. PROVIDE WITH FULL TANK OF SALT WITH AN ADDITIONAL 100% IN BAGS STORED ON PALLET FOR OWNER.

	GAS REGULATOR SCHEDULE														
TAG	MED	MODEL	CAPACITY		INLET	INLET SIZE	OUTLET	OUTLET SIZE		REGULATOR					
TAG	MICN.	WODEL	(CFH)	IONNDOWN	(PSI)	(IN)	(IN WC)	(IN)	EQUIP SERVED	LOCATION					
GR-1	PIETRO FIORENTINI	31155OPD	6000	500:1	5	2	14	2	B-1	INTERIOR					
GR-2	PIETRO FIORENTINI	31155OPD	6000	500:1	5	2	14	2	B-2	INTERIOR					
GR-3	PIETRO FIORENTINI	31155OPD	6000	500:1	5	2	14	2	B-3	INTERIOR					
GR-4	PIETRO FIORENTINI	31155OPD	6000	500:1	5	2	14	2	B-4	INTERIOR					
GR-5	PIETRO FIORENTINI	31153OPD	2500	500:1	5	1 1/4	14	1 1/4	EXISTING KITCHEN	INTERIOR					
GR-6	PIETRO FIORENTINI	31153OPD	2400	500:1	5	1 1/4	14	1 1/4	NEW AND EXISTING GWH	INTERIOR					
GR-7	PIETRO FIORENTINI	31051OPD	320	500:1	5	1/2	14	1/2	EXISTING UNIT A SCIENCE LAB	INTERIOR					
GR-8	PIETRO FIORENTINI	31152OPD	1200	500:1	5	1	14	1	DHU-1	EXTERIOR					
GR-9	PIETRO FIORENTINI	31152OPD	1200	500:1	5	1	14	1	DHU-2	EXTERIOR					
GR-10	PIETRO FIORENTINI	31051OPD	400	500:1	5	1/2	14	1/2	DOAS-2	EXTERIOR					
GR-11	PIETRO FIORENTINI	31051OPD	450	500:1	5	1/2	14	1/2	UNIT J AND K SCIENCE LABS	EXTERIOR					

PROVIDE AND INSTALL WITH VENT PIPED TO EXTERIOR.
 VERIFY EXACT REGULATOR SIZE BASED ON ACTUAL EQUIPMENT INSTALLED PRIOR TO ORDERING.
 PROVIDE WITH EXTERNAL DOWNSTREAM CONTROL LINE, FIELD INSTALLED.

DOMESTIC BOOSTER PUMP SCHEDULE													
TAG	MFR.	MODEL	TOTAL FLOW (GPM)	TOTAL HEAD (FT)	ENTERING PRESS. (PSI)	LEAVING PRESS. (PSI)	PUMP QTY	MOTOR (HP, EA)	PUMP RPM	ELEC (V/PH)	FLA	R	
DBP-1	BELL & GOSSETT	e-SV	400	138	25	80	4	15.0	3600	460/3	85	1	
										ļ!	L		
REMARKS:	 :												
1. PROVIDE	E AND INSTALL WITH SKID	MOUNTED PREP	PED AND FACT	ORY WIRED	SYSTEM.								
2. PROVIDE	E INDIVIDUAL ISOLATION \	ALVES AND PRVS	S FOR EACH PL	JMP.									
3. PROVIDE	E AND INSTALL WITH FACT	FORY WIRED CON	TROL PANEL W	ITH PRESSU	RE SENSORS,	PRESSURE GA	UGES, ST	ARTERS, S	TATUS LIC	GHTS, AND	DISCONN	ECT SV	
4. PANELS	SHALL BE WIRED FOR A SI	NGI E POINT ELEC	CTRICAL CONN	ECTION.									

PANEL SHALL BE WIRED FOR A SINGLE POINT ELECTRICAL CONNECTION
 PROVIDE AND INSTALL WITH WESSELS FXA-200 PRESSURE TANK.

NOTES: 1. QUADPLEX WITH (1) REDUNDANT PUMP, (3) PUMPS OPERATE IN PARALLEL AT COMBINED FLOW OF 400 GPM AND 138 FEET OF HEAD.

PLUMBING THERMAL EXPANSION TANK SCHEDULE													
TAG	MFR.	MODEL	TOTAL VOL (GAL)	MAX ACCEPT VOL (GAL)	DIA (IN)	HEIGHT (IN)	PRECHARGE (PSIG)	CONN. SIZE (IN)	TANK WT (LBS)	TANK MAX OP WT (LBS)	REM		
DET-1	BELL & GOSSETT	PTA-452	211.0	211.0	32	76	65	2	503	2262.7	1,		
REMAR	KS:												
1. ALL T	ANKS SHALL BE AS	ME RATED AND) SHALL BE P	ROVIDED WITH A	LINE SIZE	T&P RELIE	F VALVE ON TH	IE INLET PIF	PING.				
2. PROV	IDE WITH INTEGRA	L INLET TURBU	LATOR TO PF	EVENT STAGNAN	IT WATER	IN THE TAP	NK AS WELL AS	ANTI-MICR	OBIAL LINEF	IN TANK.			
3. CONT	RACTOR MUST VE	RIFY THE SYSTE	EM STATIC W	ATER PRESSURE	PRIOR TC	INSTALLIN	IG TANK AND AI	OJUST PRE-	CHARGE AS	REQUIRED.			

16 24

32 0 SC

SCALE: 1/8" = 1'-0"

1

	GLYCOL FILL STATION SCHEDULE														
TAG	MFR.	MODEL	CAPACITY (GAL)	MAX. PRESSURE (PSI)	FLOW RATE (GPM)	MOTOR SIZE (HP)	ELEC (V/PH)								
GFS-1	ADVANTAGE CONTROLS	GF-1A1A0	55	60	5	1/3	120/1								
GFS-2	ADVANTAGE CONTROLS	GF-1A1A0	55	60	5	1/3	120/1								
REMARKS: 1. PROVIDE AND INSTALL WITH FULLY PIPED PRESSURE SWITCH, PRESSURE GAUGE, AND LOW LEVEL ALARM SYSTEM. 2. PROVIDE WITH AUXILLARY ALARM CONTACT FOR LOW LEVEL FOR BMS INTEGRATION.															

3. FURNISHED BY CHEMICAL TREATMENT PROVIDER, INSTALLED BY MC. COORDINATE WITH CHEMICAL TREATMENT PROVIDER.

	ELECTRIC UNIT HEATER SCHEDUL													
TAG	MFR.	MODEL	TYPE	CAPACITY (KW)	AIRFLOW (CFM)	ELEC (V/PH								
UH-M1	QMARK	QWD02	HORIZONTAL	2.0	700	208/1								
REMARKS: 1. PROVIDE AND INSTALL WITH FACTORY WIRED ELECTRICAL DISCONNECT.														

REMARKS
1, 2, 3
1, 2, 3

	VARIABLE AIR VOLUME TERMINAL SCHEDULE														
-						MIN COOLING	MAX	MIN HEATING	MAX HEATING	INLET	DOWNSTRM	INLET	HEATING	AIR P.D.	ELEC
	TAG	MFR.	MODEL	TYPE	SERVICE	AIR (CFM)	COOLING AI	AIR (CFM)	AIR (CFM)	S.P.	S.P.	SIZE (IN)	(KW)	(IN)	(V/PH)
	VAV-1	TITUS	DESV 04	SO	OFFICE L102	70	200	70	135	1"	0.25"	4	1.0	0.04	120/1
	VAV-2	TITUS	DESV 04	SO	CONTROLS	50	150	50	100	1"	0.25"	4	1.0	0.04	120/1
	REMARKS	:				•									

PROVIDE AND INSTALL WITH LINED DISCHARGE PLENUM SAME SIZE AS COIL DICHARGE, 3' LONG (MIN).
 PROVIDE AND INSTALL WITH FACTORY WIRED CONTROL TRANSFORMER (120 VAC TO 24 VDC).
 PROVIDE AND INSTALL WITH LINED INLET SOUND ATTENUATOR AND FILTER ON RETURN CONNECTION.

COILS RATED WITH 55 DEG EAT AND 75 DEG LAT.
 PROVIDE AND INSTALL WITH SCR ELECTRIC HEATER WITH AUTO RESET THERMAL CUTOUTS, MANUAL RESET, FLOW SWITCH, AND MAGNETIC CONTACTORS.
 PROVIDE AND INSTALL WITH FACTORY WIRED ELECTRICAL DISCONNECT.

REMARKS

SO = SHUTOFF SFP = SERIES FAN POWERED PFP = PARALLEL FAN POWERED

NOTES:

						HYDR	ONI		UMI	SC	HED	ULE					
	TAG	MFR.	MODEL	FRAME SIZE	IMPELLER DIA (IN)	FLUID	FLOW (GPM)	HEAD (FT)	NPSH R (FT)	MOTOR (HP)	MOTOR (BHP)	EFF (+/- 5%)	PLEV (%)	MOTOR RPM	DESIG N RPM	ELEC (V/PH)	SERVICE
	P-1	BELL & GOSSETT	E-1510 3GB	284T	12.5	WATER	569	112	8.91	25.0	22.9	70.3	73.2	1800	1747	460/3	HEAT PUMP LOOP
	P-2	BELL & GOSSETT	E-1510 3GB	284T	12.5	WATER	535	110	8.06	25.0	20.6	71.9	73.3	1800	1693	460/3	HEAT PUMP LOOP
	P-3	BELL & GOSSETT	E-1510 3GB	284T	12.5	WATER	522	105	7.68	25.0	19.2	71.8	73.3	1800	1653	460/3	HEAT PUMP LOOP
	P-4	BELL & GOSSETT	E-1510 3GB	284T	12.5	WATER	494	110	7.33	25.0	18.6	73.5	73.2	1800	1644	460/3	HEAT PUMP LOOP
	Ъб Д	BELL&GOSSETT	E-1510 4GC	324I	12.375	WATER	650	150	9.2	40.0	30.7		~	1800	1764	460/3	PHASE 1 ADDITION
\frown	🗸 P-6 🔪	BELL & GOSSETT	€-1510 4GC	✓ 324T ∖	1 2.375	WATER V	~ 650	150~	9.2	40.0	30.7~	78.	~-	1800	1764	460/3	PHASE 1 ADDITION
	P-7	BELL & GOSSETT	E-1510 4GC	324T	12.375	WATER	650	150	9.2	40.0	30.7	78.1	-	1800	1764	460/3	PHASE 1 ADDITION
	CTP-1	BELL & GOSSETT	VSX-VSCS 8x10x17.5B	405T/TS	17.5	WATER	2400	90	6.55	75.0	64.0	85.1	81.0	1200	1145	460/3	COOLING TOWER 1
	CTP-2	BELL & GOSSETT	VSX-VSCS 8x10x17.5B	405T/TS	17.5	WATER	2400	90	6.55	75.0	64.0	85.1	81.0	1200	1145	460/3	COOLING TOWER 2
	P-8	BELL & GOSSETT	Б-1510 2.5BB 🖌	215T 🖌	9.5	ر 30% PG	260	λ ⁷⁰	6.73	10.0	p.05	77.1j	-	j 1800	1605 ₁	460/3	ر DOAS-1
	<u>P</u> 9	BELL & GOSSETT	E-1510 2.888	215T	9.5~	30%/PG	260	- XQ	6.73	<u>\10.0</u> ∕	6.05	777.1	、小	1800	1605	460/3	DOAS-1
	P-10	BELL & GOSSETT	E-1510 2BD	184T	8.5	30% PG	145	70	7.01	5.0	3.6	72.6	<u> </u>	1800	1745	460/3	DOAS-1
	P-11	BELL & GOSSETT	E-1510 2BD	184T	8.5	30% PG	145	70	7.01	5.0	3.6	72.6	-	1800	1745	460/3	DOAS-1
	PHP-1	BELL & GOSSETT	ECOCIRC XL 45-375	-	-	WATER	200	35	-	3.0	-	-	-	3600	3346	460/3	PH-1
	REMARK	S:															

1. ALL MOTORS SHALL BE NON-OVERLOADING. 2. MOTOR SHALL BE MULTI-TAP 460/240/208 BALDOR SUPER-E WITH INTEGRAL SHAFT GROUNDING RING AND COMPLY WITH NEMA MG1 FOR VARIABLE SPEED OPERATION.

3. MOTOR SHALL HAVE CLASS F INSULATION FOR USE WITH VARIABLE SPEED DRIVE. 4. MFR SHALL ALIGN PUMP SHAFT IN THE FIELD, PRIOR TO START-UP. PROVIDE WRITTEN REPORT OF ALIGNMENT AND STARTUP.

5. PROVIDE WITH IMPELLER SIZE LISTED, VSD WILL BE USED TO BALANCE FLOW TO DESIGN POINT. 6. LEAD-LAG, PARALLEL PUMPING OPERATION, COMBINED FLOW 1950 GPM AT 150 FEET HEAD.

IEAD-LAG, PARALLEL PUMPING OPERATION, COMBINED FLOW 520 GPM AT 70 FEET HEAD.
 LEAD-LAG, PARALLEL PUMPING OPERATION, COMBINED FLOW 290 GPM AT 70 FEET HEAD.

	EXPANSION TANK SCHEDULE														
TAG	MFR.	MODEL	SERVICE	APPROX SYS VOL (GAL)	PRE-CHARGE (PSIG)	CALC. ACCEPT FACTOR	TANK VOL. (GAL)	ACCEPT. VOL (GAL)	DIA. (IN)	HEIGHT (IN)	CONN. SIZE (IN)	TANK FUL WT (LBS)			
ET-1.1	BELL & GOSSETT	B-1400	HEAT PUMP	30,000	30	0.618	370	229	36	98	1 1/2	3958			
ET-1.2	BELL & GOSSETT	B-1400	HEAT PUMP	-	30	0.618	370	229	36	98	1 1/2	3958			
ET-2	BELL & GOSSETT	B-800	DOAS-1	6,000	15	0.618	211	130	30	82	1 1/2	2306			
ET-3	BELL & GOSSETT	B-600	DOAS-1	3,000	15	0.618	158	98	30	64	1 1/2	1814			
REMAR	RKS:														
1. PRC	VIDE AND INSTALL	WITH LINE	SIZE T&P RELIEF	F VALVE ON INLE	Т.										

ALL TANKS SHALL BE ASME STAMPED.
 CONTRACTOR MUST VERIFY THE SYSTEM STATIC WATER PRESSURE PRIOR TO INSTALLING TANK AND ADJUST PRE-CHARGE AS REQUIRED.

GENERAL MECHANICAL EQUIPMENT SCHEDULE

 TAG:
 HS-1.1, HS-1.2, HS-2.1, HS-2.2

 TYPE:
 HYDROCYCLONE SEPARATOR

 MFR:
 PUROFLUX

 MODEL:
 PF-61-060

 PERFORMANCE:
 620 GPM 3.0 PSI MINIMUM FLOW, 1245 GPM 12 PSI MAXIMUM FLOW, 6" FLNG SUPPLY AND RETURN CONNECTION, 1-1/2" FPT PURGE CONNECTION, 32 GALLON VOLUMN, 650 LBS OPERATING WEIGHT, MINIMUM 95% SINGLE PASS REMOVAL EFFICIENCY RATE.

 REMARKS:
 PROVIDE AND INSTALL WITH PACKAGED AUTOMATIC ADJUSTABLE PURGE CONTROLS IN NEMA 4X ENCLOSURE.

PROVIDE AND INSTALL WITH PACKAGED AUTOMATIC CONTROL VALVE.

	LOUVER SCHEDULE														
TAG	MFR.	MODEL	FACE SIZE (IN)	FREE AREA (SF)	AIRFLOW (CFM)	FACE VELOCITY (FPM)	THICKNESS (IN)	FINISH	SERVICE						
L-1	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-2	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-3	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-4	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-5	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-6	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-7	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-8	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-9	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-10	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-11	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-12	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-13	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-14	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-15	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-16	GREENHECK	ESD-603	78x90	27.64	20450	740	6	2.0 mil 70% KYNAR	INTAKE						
L-17	GREENHECK	SED-501	48x96	19.1	10500	548	5	2.0 mil 70% KYNAR	RETURN						
L-18	GREENHECK	SED-501	48x96	19.1	10500	548	5	2.0 mil 70% KYNAR	RETURN						
L-19	GREENHECK	SED-501	48x96	19.1	10500	548	5	2.0 mil 70% KYNAR	RETURN						
L-20	GREENHECK	SED-501	48x96	19.1	10500	548	5	2.0 mil 70% KYNAR	RETURN						
L-21	GREENHECK	ESD-403	72x24	5.7	2300	406	4	2.0 mil 70% KYNAR	EXHAUST						
REMARK	S:														

1. PROVIDE AND INSTALL WITH ALUMINUM BIRD SCREEN.

PROVIDE AND INSTALL WITH CHANNEL FRAME.
 COLOR SELECTION BY ARCHITECT.

NOTE: PRIOR TO ORDERING ANY LOUVER, CONTRACTOR SHALL FIELD VERIFY ANY EXISTING OPENINGS THAT LOUVERS MUST BE INSTALLED IN.

VARIABLE SPEED DRIVE SCHEDULE MOTOR ELEC MAX SIZE (HP) (V/PH) HARMONIC... EQUIPMENT SERVED BYPASS ENCLOSURE REMARKS MFR MODEL TAG NEMA 1 NEMA 1 NEMA 1 NEMA 1 ABB ABB ABB 460/3 460/3 460/3 460/3 NONE NONE NONE VSD-CT-1.1 ACH580 CT-1 FAN 60.0 5% CT-1 FAN ACH580 60.0 VSD-CT-1.2 5% CT-2 FAN VSD-CT-2.1 ACH580 60.0 5% ACH580 CT-2 FAN NONE VSD-CT-2.2 ABB 60.0 5% VSD-P-1 NONE ABB ACH580 25.0 460/3 NEMA 1 NEMA 1 VSD-P-2 ACH580 NONE ABB 25.0 460/3 NEMA 1 VSD-P-3 ABB ACH580 460/3 NONE P-3 25.0 VSD-P-4 ABB ACH580 460/3 NONE NEMA 1 P-4 25.0 NEMA 1 NEMA 1 NEMA 1 NEMA 1 VSD-P-5 ABB ACH580 460/3 NONE 40.0 NONE VSD-P-6 ABB 460/3 ACH580 P-6 40.0 VSD-P-7 460/3 NONE ACH580 ABB P-7 40.0 VSD-P-8 ABB ACH580 460/3 NONE P-8 10.0 ACH580 -NONE VSD-P-9 NEMA 1 NEMA 1 NEMA 1 NEMA 1 APH580 VSD-PV10 NOME 460/3 NONE NONE NONE 460/3 460/3 P-11 ACH580 VSD-P-11 ABB 5.0 5% CTP-1 VSD-CTP-1 ABB ACH580 75.0 5% VSD-CTP-2 CTP-2 460/3 ABB ACH580 75.0 5% **REMARKS:**

REFER TO SPECIFICATIONS FOR FURTHER REQUIREMENTS AND INFORMATION.
 COORDINATE EXACT MOTOR DATA WITH EQUIPMENT BEING SERVED BY THIS DRIVE.
 PROVIDE WITH MANUAL LOCKABLE DISCONNECT SWITCH INTEGRAL TO DRIVE.

A. PROVIDE WITH MANOAL LOURDLE DISCONNECT SWITCH INTEGRAL TO DRIVE.
 PROVIDE WITH BACNET INTERFACE FOR FULL INTEGRATION INTO BMS.
 STARTUP AND OWNER TRAINING SHALL BE PROVIDED BY THE FACTORY AUTHORIZED REPRESENTATIVE TO ENABLE FULL FACTORY WARRANTY.

SCALE: 1/16" = 1[']-0"

_ . ____ . ____ . ____ . _

SCALE: 3/32" = 1'-0"

SCALE: 1/8" = 1'-0"

$4 \frac{SRZ HU \# ODQ \# IIJVW \# ORRU \# XQIW }{423 \% \# 008}$

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

SCALE: 3/4" = 1'-0"

SCALE: 1" = 1'-0"

4

	SODQ#QRWHV
1.	COORDINATE LOCATION, ROUGH-IN AND ELECTRICAL REQUIREMENTS WITH CONTRACTOR AND APPROVED SHOP DRAWINGS PRIOR TO ROUGH-IN. REFER TO EQUIPMENT SCHEDULE ON SHEET E701 FOR ADDITIONAL INFORMATION.
2.	PROVIDE AND INSTALL FSR PBW-250-2KO-BX BACK BOX TO MOUNT DOUBLE DUPLEX RECEPTACLE. BOX TO BE MOUNTED AT +72" TO BOTTOM OF WALL BOX. COORDINATE LOCATION WITH MOUNTING BRACKET/BLOCKING AND ARCHITECTURAL ELEVATION PRIOR TO ROUGH-IN. COVER COLOR SHALL BE SELECTED BY ARCHITECT.
3.	MOUNT RECEPTACLES AT +6" ABOVE BOTTOM OF DISPLAY CASE. COORDINATE WITH ARCHITECTURAL ELEVATIONS.
4.	CONTRACTOR TO CONTROL EMERGENCY SHUT-OFF BUTTON IN RM. M101. REFER TO DETAIL #9 ON SHEET E501 FOR ADDITIONAL INFORMATION.
5.	EMERGENCY SHUT-OFF BUTTON WITH COVER. REFER TO DETAIL #9 ON SHEET E501 FOR ADDITIONAL INFORMATION.
6.	RECEPTACLE TO SERVE ACID FEED CONTROL PANEL. COORDINATE EXACT LOCATION WITH POOL EQUIPMENT CONTRACTOR.
7.	RECEPTACLE TO SERVE CALCIUM HYPOCHLORITE CONTROL PANEL. COORDINATE EXACT LOCATION WITH POOL EQUIPMENT CONTRACTOR.
8.	CONTRACTOR SHALL MAKE FINAL CONNECTION TO CHEMICAL CONTROLLER. COORDINATE EXACT LOCATION WITH POOL EQUIPMENT CONTRACTOR.
9.	RECEPTACLE TO SERVE SOLENOID VALVE. COORDINATE EXACT LOCATION WITH POOL EQUIPMENT CONTRACTOR.
10.	CONTRACTOR SHALL MAKE FINAL CONNECTION TO FLOW METER SENSORS. COORDINATE EXACT LOCATION WITH POOL EQUIPMENT CONTRACTOR.
11.	PROVIDE AND INSTALL 4"X4"X6" PVC JUNCTION BOX WITH 1" PVC DRAIN TO SERVE TIMING SYSTEM. COORDINATE EXACT LOCATION WITH POOL CONTRACTOR. REFER TO AQ205 FOR ADDITIONAL INFORMATION ON ROUGH-IN REQUIREMENTS.
12.	PROVIDE AND INSTALL 1" PVC CONDUIT TO JUNCTION BOX TO SERVE TIMING SYSTEM. COORDINATE EXACT LOCATION WITH POOL CONTRACTOR. REFER TO AQ205 FOR ADDITIONAL INFORMATION ON ROUGH-IN REQUIREMENTS.
13.	COORDINATE TERMINATION LOCATION OF CONDUIT FOR TIMING SYSTEM WITH POOL CONTRACTOR. COORDINATE EXACT LOCATION WITH POOL CONTRACTOR. REFER TO AQ205 FOR ADDITIONAL INFORMATION ON ROUGH-IN REQUIREMENTS.
14.	PROVIDE AND INSTALL PUSH BUTTON CONTROL STATION CORROSION RESISTANT, 30 MM ENCLOSURE TYPE NEMA 4X, 304 STAINLESS STEEL. BUTTONS SHALL BE "START" AND "STOP" TO FOR REMOTE OPERATION OF DIVING AGITATOR PUMP (PP3). INTERCONNECT TO PUMPS MOTOR STATER IN MECHANICAL ROOM. COORDINATE BUTTON LOCATION WITH OWNER. BUTTON STATION SHALL BE IP66 RATED. STATION SHALL BE EQUAL TO SIEMENS #52C201S.
15.	THE CONTRACTOR SHALL MAKE THE FINAL TERMINATION TO LOW VOLTAGE TRANSFORMER, PROVIDE BY DROWNING DETECTION SYSTEM INSTALLER, TO SERVE COMBINATION UNDERWATER CAMERA/LIGHT UNITS. PROVIDE TWO (2) #16 CONDUCTOR CABLE IN 1/2" CONDUIT FROM LOW VOLTAGE TRANSFORMER TO JUNCTION BOX PROVIDE BY DROWNING DETECTION SYSTEM INSTALLER

CONTRACTOR SHALL REFER TO POOL DRAWINGS FOR ADDITIONAL ELECTRICAL ROUGH-IN REQUIREMENTS.

CAMERA/LIGHT UNITS.

CTOR AND ON SHEET E701

RECEPTACLE. TH MOUNTING COLOR SHALL

RMER, PROVIDE AND TERMINATE TO CONNECTORS IN JUNCTION BOX. COORDINATE CONNECTION REQUIREMENTS WITH DROWNING SYSTEM INSTALLER. TYPICAL OF FOUR (4) COMBINATION UNDERWATER

A S S O C I A T E S ARCHITECTURE 427 S. COLLEGE INDIANAPOLIS, IN 4 $\triangleleft \triangleleft$ \cap PRIMARY ENGINEERING INC

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	EQUIPMENT SCHEDULE																	_	EQUI	PME	ENT SCHE	DULE									
	NOI				CIRCUIT INFORMATI	ON	DISCO	NNECT		VARIA FREQUENC	ABLE CY/SPEED (FD/VSD)	S	SOLID STAT		TARTER			NOI	_			CIRCUIT INFORMAT	TION		DISCONNECT		VA FREQUE	RIABLE NCY/SPEED	SOI	ID STATE M	NOTOR STARTER
	MENT DESIGNATI	MENT LOCATION	MENT LOAD	GE/PHASE	CONDUIT AND CONDUCTOR SIZE	BRANCH CIRCUIT DESIGNATION	OR NON-	UNECT + SIZE	ATING AFING AFINT MOUNTED OL PANEL			JED BY	oL	UNECT	4 SIZE ATING	ENCLOSURE	REMARKS	MENT DESIGNAT	MENT LOCATION	MENT LOAD	GE/PHASE	CONDUIT AND CONDUCTOR SIZ	BRANCH E CIRCUIT DESIGNATION	ED BY	OR NON- ENCLOSURE	ATING AENT MOUNTED OL PANEL	ED BY		JED BY	or	
	HP-J2.10 HP-J2.11	RM. J214 RM. J216	9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HJ2-26(38,30) 2HJ2-31(33,35)		DISCON	FUSE R EQUIPN CONTR	PROVID	INSTAL	PROVID NEMA S	CONTR	DISCON	SWITCH FUSE R			B-1 B-2	RM. A114 RM. A114	22.0 FLA 22.0 FLA	480V/3PH 480V/3PH	3/4"C, 3-#10,1-#10G 3/4"C, 3-#10,1-#10G	HPA-25(27,29) HPA-20(22,24)	PROVID	FUSED FUSED NEMA E DISCON	FUSE R E QUIPN CONTR	PROVID			CONTR	
	HP-J2.12 HP-J2.13	RM. J209 RM. J211	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HJ2-32(34,36)	NT NT											B-3 B-4	RM. A114 RM. A114	22.0 FLA 22.0 FLA	480V/3PH 480V/3PH 480V/3PH	3/4"C, 3-#10,1-#10G 3/4"C, 3-#10,1-#10G	HPA-31 (33,35) HPA-26 (28,30)								
	HP-J2.15 HP-K2.01	RM. J232 RM. K01	7.9 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HJ2-43(45,47)	NT NT											2 CF1 CF2	RM. M101A RM. M101A	15 MCA 15 MCA	120V/1PH 120V/1PH	3/4"C,2-#12,1-#12G 3/4"C,2-#10,1-#10G	1LK1-42 1LK1-44			INT INT		\blacksquare			
	HP-K2.02 HP-K2.03	RM. K202 RM. K204	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 2/4"C,4-#12,1-#12G	2HK1-2(4,6)	NT NT											CT-1	RM. A114A	(2) - 60 H	P 480V/3PH	SEE RISER DIAGRAM ON E601	MDP1			INT					
	HP-K2.04 HP-K2.05 HP-K2.06	RM. K2000 R,M. K203	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4 °C,4-# 12,1-# 12G 3/4 °C,4-# 12,1-# 12G 3/4 °C,4-# 12,1-# 12G 3/4 °C,4-# 12,1-# 12G	2HK1-14(16,18)	NT NT											CT-2 3 CT-2	RM. A114A RM. A114A RM. A114A	(2) - 00 Th (2) - 10KV (2) - 10KV	V 480V/3PH V 480V/3PH	3/4"C,3-#10,1-#10G 3/4"C,3-#10,1-#10G	HPA-37(39,41) HPA-32(34,26)	EC EC	NF 1 30A NF 1 30A						
	HP-K2.07 HP-K2.08	RM. KL205 RM. K206 RM. K208	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HK1-19(21,23)	NT NT											CTP-1	RM. A114	75 HP	480V/3PH	SEE RISER DIAGRAM ON E601	MDP1	-			MC	EC EC			
	HP-K2.10 HP-K2.11	RM. K207 RM. K209	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HK1-26(38,30) II 2HK1-31(33,35) II	NT NT											DHU-1	UNIT L ROOF	247.8 MC	A 480V/3PH	SEE RISER DIAGRAM ON E602	MDP2	INT							
	HP-K2.12 HP-K2.13 HP-K2.14	RM. K210 RM. K212 RM. K211	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HK1-32(34,36) II 2HK1-37(39,41) II 2HK1-38(40,42) II	NT NT											DHU-2 DOAS-1	UNIT L ROOF	247.8 MC	A 480V/3PH 480V/3PH	SEE RISER DIAGRAM ON E602 SEE RISER DIAGRAM ON E602	MDP2 3HK3-7	INT				++			
	HP-K2.15 HP-L2.01	RM. K2000 RM. L2000	7.9 MCA 7.9 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HK1-43(45,47)	NT NT											DOAS-2	UNIT L ROOF	58.6 MCA	A 480V/3PH	1-1/4"C,3-#1,1-#8G	3HL1-2(4,6)	INT							
	HP-L2.02 HP-L2.03 HP-L2.04	RM. L208 RM. L203 RM. L204	7.9 MCA 7.9 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HL1-2(4,6)	NT NT											EF-A1	RM. 910 RM. A114	(4) - 15 Hi 1.0 HP	2 480V/3PH 120V/1PH	3/4"C,2-#10,1-#10G	1LA1-19	INT				+			
1	HP-L2.05 HP-L2.06 HP-M2.01	RM. L2000 RM. L201 RM. M203	9.8 MCA 10.9 MCA 9.8 MCA	480V/3PH 208V/1PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HL1-13(15,17)	NT NT										9	EF-J1 EF-J2 FF-J3	RM. J1300 RM. J222 RM. J324	3/4 HP 3/4 HP 3/4 HP	120V/1PH 120V/1PH 120V/1PH	3/4"C,2-#10,1-#10G 3/4"C,2-#10,1-#10G 3/4"C,2-#10,1-#10G	1LJ1-29 2LJ1-24 3LJ1-38	INT INT							
J C	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		m.e.s.MCA	~480V/3PH	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	NTronom	mm			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			~~~~~ 			EF-J4 EF-J5	UNIT J ROOF UNIT J ROOF	1/2 HP 1/2 HP	120V/1PH 120V/1PH	3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G	3LJ2-72 3LJ2-70	INT							
	HP-J3.01 HP-J3.02 HP-J3.03	RM. J300 RM. J301 RM. J303	7.9 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HJ2-1(3,5) II 3HJ2-2(4,6) II 3HJ2-7(,9,11) II	NT NT NT											EF-J6 EF-J7 EF-K1	UNIT J ROOF RM. J313 UNIT K ROOF	1/2 HP 28 WATTS 1/2 HP	120V/1PH S 120V/1PH 120V/1PH	3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G	3LJ2-68 3LJ2-61 3LK2-53	INT INT INT				+			
	HP-J3.04 HP-J3.05	RM. J302 RM. J304	9.8 MCA 7.9 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HJ2-8(10,12)	NT NT											EF-K2 EF-K3	UNIT K ROOF	1/2 HP 1/2 HP	120V/1PH 120V/1PH	3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G	3LK2-55 3LK2-57	INT INT							
	HP-J3.00 HP-J3.07 HP-J3.08	RM. J3200 RM. J322 RM. ST301	7.9 MCA 10.9 MCA	480V/3PH 480V/3PH 208V/1PH	3/4 C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HJ2-19(21,23)	NT NT										9	EF-K5 EF-M1	RM. K305 RM. M101	28 WATTS 1/2 HP	S 120V/1PH 120V/1PH	3/4 [°] C,2-#12,1-#12G 3/4 [°] C,2-#12,1-#12G 3/4 [°] C,2-#12,1-#12G	3L32-00 3LK2-59 1LK1-34	INT							
	HP-J3.09 HP-J3.10 HP-J3.11	RM. J305 RM. J307 RMN. J314	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HJ2-25(27,29) II 3HJ2-20(22,24) II 3HJ2-31(33,35) II	NT NT NT											EF-M2 GFS-1	RM. M101 RM. J324	3/4 HP 3/4 HP	120V/1PH	3/4"C,2-#10,1-#10G	3LJ1-34	EC	NF 1 30A			++			
	HP-J3.12 HP-J3.13	RM. J316 RM. J309	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HJ2-26(28,30)	NT NT											GFS-2	RM. J324	3/4 HP	120V/1PH	3/4"C,2-#10,1-#10G	3LJ1-36	EC	NF 1 30A				NT		
2	HP-J3.14 HP-J3.15 HP-J3.16	RM. J3200 RM. J234	7.9 MCA 7.9 MCA 24.5 MCA	480V/3PH 480V/3PH 480V/3PH	3/4 C,4-#12,1-#12G 3/4"C,4-#12,1-#12G SEE RISER DIAGRAM ON E602	3HJ2-43(45,47)	NT NT NT											HP-1	RM. G100	9.4 FLA 79.4 FLA	480V/3PH	SEE RISER	3HJ3-1	INT							
	HP-J3.17 HP-J3.18 HP-J3.19	RM. J324 RM. J324 RM. J315	24.5 MCA 7.9 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	SEE RISER DIAGRAM ON E602 3/4"C,4-#12,1-#12G 3/4"C.4-#12.1-#12G	SEE RISER II 3HJ2-38(40,42) II 3HJ2-49(51.53) II	NT NT											HP-2 HP-3 HP-4	RM. J324 RM. J324 RM. J324	79.4 FLA 79.4 FLA 79.4 FLA	 480V/3PH 480V/3PH 480V/3PH 480V/3PH 	SEE RISER	3HJ3-2 3HJ3-3 3HJ3-4	INT INT INT				+			
	HP-J3.20 HP-K3.01	RM. J317 RM. K302	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HK1-38(40,42)	NT NT											HP-5 HP-6	RM. J324 RM. J324	79.4 FLA 79.4 FLA	480V/3PH 480V/3PH 480V/3PH	SEE RISER	3HJ3-5 3HJ3-6	INT							
	HP-K3.02 HP-K3.03 HP-K3.04	RM. K3000 RM. K3000 RM. K301	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HK1-2(4,6)	NT NT NT NT											HP-J1.01 HP-J1.02	RM. J1100A RM. J101	7.9 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HJ2-1(3,5) 1HJ2-2(4,6)	INT INT				+			
	HP-K3.05 HP-K3.06 HP-K3.07	RM. K303 RM. K304 RM. K306	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HK1-13(15,17) II 3HK1-14(16,18) II 3HK1-19(21,23) II	NT NT											HP-J1.03 HP-J1.04 HP-J1.05	RM. J103 RM. J102 BM. J104	9.8 MCA 9.8 MCA 7 9 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12 1-#12G	1HJ2-7(,9,11) 1HJ2-8(10,12)	INT INT							
	HP-K3.08 HP-K3.09	RM. K305 RM. K308	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G	3HK1-20(22,24)	NT NT											HP-J1.06 HP-J1.07	RM. J1100 RM. J1300	9.8 MCA 7.9 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HJ2-14(16,18 1HJ2-19(21,23) INT) INT							
	HP-K3.10 HP-K3.11 HP-K3.12	RM. K310 RM. K307 RM. RM. K3000	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HK1-26(38,30) II 3HK1-31(33,35) II 3HK1-32(34,36) II	NT NT NT											HP-J1.08 HP-J1.09 HP-J1.10	RM. ST101 RM. J1000A RM. J1000A	10.9 MCA 13.0 MCA 9.8 MCA	A 208V/1PH A 480V/3PH A 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1LJ2-35(37) 1HJ2-25(27,29 1HJ2-20(22,24	INT INT INT				+			
	HP-L3.01 HP-L3.02	RM. L3000 RM. L303	7.9 MCA 10.9 MCA	480V/3PH 208V/1PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HL1-1(3,5) II 3LL1-28(30) II	NT NT											HP-J1.11 HP-J1.12	RM. J105 RM. J107	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HJ2-31(33,35 1HJ2-26(2,30)) INT INT							
	HP-M3.01 HP-M3.02	RM. 302 RM. ST302	11.6 MCA 10.9 MCA	480V/3PH 208V/1PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	3HL1-7(9,11) II 3LK1-32(34) II	NT NT											HP-J1.14 HP-J1.15	RM. J116 RM. J109	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HJ2-32(34,36 1HJ2-43(45,47) INT) INT) INT							
<u>_2</u>	HP-M3.03 HS-1.1	RM. M301	13.0 MCA	480V/3PH 120V/1PH	3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G	3HK1-37(39,41) II 1LA1-5 E	NT C NF 1	20A										HP-J1.16 HP-J1.17 HP-J1.18	RM. J111 RM. J111 RM. J128	9.8 MCA 9.8 MCA 7.9 MCA	480V/3PH 480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HJ2-38(40,42 1HJ2-49(51,53 1HJ2-44(46,48) INT) INT) INT				+			
	HS-1.2 HS-2.1	RM. A114A RM. A114A RM. A114A	1.0 FLA 1.0 FLA	120V/1PH 120V/1PH 120V/1PH	3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G	1LA1-5 E	EC NF 1 EC NF 1 EC NE 1	20A 20A										HP-J1.19 HP-K1.01 HP-K1.02	RM. J128 RM. K101 RM. K102	7.9 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HJ2-55(57,59 1HK1-1(3,5)) INT INT							
	HWRP-1	RM. G100	3.0 HP	480V/3PH	3/4"C,3-#12,1-#12G	HPB-33(35,374)						EC 0	НОА	FVNR 30	0A 8A		7	HP-K1.03 HP-K1.04	RM. K102 RM. K104	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HK1-7(,9,11)	INT							
	HWRP-2 P-1	RM. G100	25 HP	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 1-1/4"C,3-#4,1-#8G	HPB-33(35,37) HPA-(1.3.5)				MC	EC	EC 0	HOA	FVNR 30	0A 8A		5,6	HP-K1.05 HP-K1.06 HP-K1.07	RM. K1100 RM. K103 RM. K105	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HK1-13(15,17)1HK1-14(16,18 1HK1-19(21,23) INT) INT) INT				+			
	P-2 P-3	RM. A114 RM. A114	25 HP 25 HP	480V/3PH 480V/3PH	1-1/4"C,3-#4,1-#8G 1-1/4"C,3-#4,1-#8G	HPA-2(4,6) HPA-7(9,11)				MC MC	EC EC						5,6 5,6	HP-K1.08 HP-K1.09	RM. K106 RM. K108	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HK1-20(22,24) INT) INT							
	P-5 P-6	RM. A114 RM. A114 RM. A114	40 HP 40 HP	480V/3PH 480V/3PH	1-1/4 C,3-#3,1-#8G 1-1/4"C,3-#3,1-#8G 1-1/4"C,3-#3,1-#8G	HPA-13(15,17) HPA-14(16,18)				MC MC	EC EC						1,6 1,6	HP-K1.11 HP-K1.12	RM. K1109 RM. K110	9.8 MCA 9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	31HK1-31(33,35 31HK1-32(34,36) INT) INT) INT							
	P-7 P-8 P-9	RM. A114 RM. J324 RM. J324	40 HP 10 HP 10 HP	480V/3PH 480V/3PH 480V/3PH	1-1/4"C,3-#3,1-#8G 3/4"C,3-#10,1-#10G 3/4"C,3-#10,1-#10G	HPA-19(21,23) 3HJ2-44(46,48) 3HJ2-50(52,54)				MC MC MC	EC EC EC						1,6 6 6	HP-K1.13 HP-K1.14 HP-K1.15	RM. K112 RM. K111 RM. K114	9.8 MCA 9.8 MCA 7.9 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	31HK1-37(39,41 31HK1-38(40,42 31HM1-37(39,41) INT) INT) INT				+			
	P-10 P-11	RM. J324 RM. J324	5.0 HP 5.0 HP	480V/3PH 480V/3PH	3/4"C,3-#12,1-#12G 3/4"C,3-#12,1-#12G	3HJ2-56(58,60) 3HJ2-55(57,59)				MC MC	EC EC						6 6	HP-L1.01 HP-L1.02	RM. L1000A RM. L1000	9.8 MCA 13.0 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 2/4"C,4-#12,1-#12G	1HM1-25(27,29 1HM1-26(28,30) INT) INT							
	PH-1 PHP-1	RM. M101 RM. M101	15 MCA 3.0 HP	120V/1PH 480V/3PH	3/4"c,2-#12,1-#12G 3/4"C,3-#12,1-#12G	1LK1-49 E	EC NF 1 EC NF 4	20A X 30										HP-M1.01 HP-M1.02	RM. M101 RM. M1000A	11.6 MCA 9.8 MCA	4800/3PH 4800/3PH 4800/3PH 4800/3PH 4800/3PH	3/4°C,4-#12,1-#12G 3/4°C,4-#12,1-#12G 3/4°C,4-#12,1-#12G	1HM1-1(3,5)	INT INT INT							
	PP1 PP2	RM. M101 RM. M101	40 HP 40 HP	480V/3PH 480V/3PH	1-1/4"C,3-#3,1-#8G 1-1/4"C,3-#3,1-#8G	1HM1-13(15,17) 1HM1-14(16,18)				PEC PEC	EC EC							HP-M1.03 HP-J2.01 HP-J2.02	RM. M1000 RM. J200 RM. J201	11.6 MCA 7.9 MCA 9.8 MCA	A 480V/3PH A 480V/3PH A 480V/3PH A 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	1HM1-7(9,11) 2HJ2-1(3,5) 2HJ2-2(4,6)	INT INT INT				+			
^	PP3	RM. M101	1.5 HP	480V/3PH	3/4"C,3-#12,1-#12G	1HM1-19(21,23)						EC 0	HOA	FVNR 30	0A 6A	4X		HP-J2.03 HP-J2.04	RM. J203 RM. J202	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HJ2-7(,9,11) 2HJ2-8(10,12)	INT INT							
	TF-L1 TF-J1	RM. K111 RM. L1000 RM. J138	1/4 HP 1/4 HP 1/4 HP	120V/1PH 120V/1PH 120V/1PH	3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G 3/4"C,2-#12,1-#12G	1KL1-46 II 1LL1-40 II LS-26 II	NT NT										10	HP-J2.05 HP-J2.06 HP-J2.07	RM. J204 RM. J220 RM. J220	9.8 MCA 7.9 MCA	480V/3PH 480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G 3/4"C,4-#12,1-#12G	2HJ2-13(15,17 2HJ2-14(16,18 2HJ2-19(21,23) INT) INT) INT							
<u> </u>	۲ ۲۶-۲۶ -۲۶-۲۶-۲۶-۲۶-۲۶-۲۶-۲۶-۲۶-۲۶-۲۶-۲۶-۲۶-۲۶-	RM. K2001	1/4 HP	~120以1积H~ 120V/1PH	3/4"C,2-#12,1-#12G	2LK1-58	NT	mm				<u> </u>		<u> </u>				HP-J2.08 HP-J2.09	RM. J205 RM. J207	9.8 MCA 9.8 MCA	480V/3PH 480V/3PH	3/4"C,4-#12,1-#12G	2HJ2-20(22,24 2HJ2-25(27,29) INT) INT							
	SEP-1	RM. M101	1/2 HP 1/2 HP	120V/1PH 120V/1PH	3/4"C,2-#10,1-#10G 3/4"C,2-#10,1-#10G	1LK1-56 1LK1-58			мс					*****			12	A EC	AMPACITY ELECTRICAL CON	TRACTOR	HL HLO	HIGH/LOW SWITCH HIGH/LOW/OFF SWITCH	MCA MHL	MIN CIF	CUIT AMPACITY TARY HIGH/LOW SWITC	W H XA/YP	WATTS X AMP C	IRCUIT BREAKEF	, Y POLE		
Lu.	U1	RM. M101	3.5 FLA 12.0 KW	120V/1PH 480V/3PH	3/4"C,2-#10,1-#10G 3/4"C,3-#10,1-#10G	1LK1-60 1HM1-8(10,12)			INT									F F FLA	existing equipm Fused Full load amps	IENT	HOA HP INT	HAND/OFF/AUTO HORSE POWER INTEGRAL WITH EQUIPMENT	MHLO NF PEC	MOMEN NON-FL POOL E	TARY HIGH/LOW/OFF S' SED QUIPMENT CONTRACTO	VITCH R					
<u>/3</u> /́	UH-M1	RM. 101A	2.0 KW	208V/1PH	3/4"C,2-#12,1-#12G	1LK1-49(51)	EC NF	20^										FVNR FVR G	FULL VOLTAGE NO FULL VOLTAGE RE	ON-REVERSIN EVERSING ACTOR	NG LOR M MC	LOCAL/OFF REMOTE SWITCH MOMENTARY ON/OFF SWITCH MECHANICAL CONTRACTOR	O RLA S		FURNISHED AND INSTA G LOAD AMPS SWITCH	LLED					
	VAV-2 SCHEDULE	RM. M102	1.0 KW	120V/1PH	3/4"C,2-#12,1-#12G	1LK1-49 E	EC NF 1	20A										REMARKS.													
	A EC EX	AMPACITY ELECTRICAL CON EXISTING EQUIPN	ITRACTOR IENT	hl hlo hoa	HIGH/LOW SWITCH HIGH/LOW/OFF SWITCH HAND/OFF/AUTO	MCA MIN MHL MO MHLO MO	N CIRCUIT AMPACI DMENTARY HIGH/LO DMENTARY HIGH/LO	TY DW SWITCH DW/OFF SWI'	W XA/YP TCH	WATTS X AMP CIRC	CUIT BREAKE	er, y pole						1. PROVIDE 2. CONNEC 3. TERMINA	AND INSTALL NEV " BRANCH CIRCUI "E EACH COOLING	V 90A/3P CIRO T TO EXISTIN G TOWER MO	CUIT BREAKER [·] IG SPARE CIRCI PTOR TO EXISTII	TO REPLACE EXISTING CIRCUIT BREA UIT BREAKER IN LOCATION AS INDICA ING SPARE 200A/3P FUSIBLE SWITCH I	KER IN EXISTING S TED. N MDP1 AS INDICA	TEMENS F	'ANEL ER TO DRAWING E601 F	OR ADDITIONAL IN	ORMATIC	N.			
		FUSED FULL LOAD AMPS		HP INT LOB	HORSE POWER INTEGRAL WITH EQUIPMENT	NF NO PEC PO			ED									4. REMOVE 5. PROVIDE	EXISTING TWIN 60 AND INSTALL NEV	A/3P FUSIBLE V 70A/3P CIRC	E SWITCH IN EX CUIT BREAKER	XISTING MDP1 AND PROVIDE NEW 100 TO REPLACE EXISTING CIRCUIT BREA DUIT FROM VSD TO MOTOP	A/3P TWIN TO SER KER IN EXISTING S	VE NEW C	Ooling Tower Pumps Anel	. REFER TO DRAW	NG E601	OR ADDITIONAL	INFORMATION		
	FVR G	FULL VOLTAGE N GENERAL CONTR		M MC	MOMENTARY ON/OFF SWITCH MECHANICAL CONTRACTOR	RLA RU S ON	I/OFF SWITCH	S INGTALL										7. PROVIDE 8. CIRCUIT S	AND INSTALL PROV			TO REPLACE EXISTING CIRCUIT BREA FOR EMERGENCY SHUT-OFF. REFER T	KER IN EXISTING S O DETAIL #1 ON S	IEMENS F HEET E50	ANEL 1 For additional info	RMATION.					
5	REMABKS	RICAL CONTRACTC	PR SHALL INSTA		CONNECT ALL FLOATS AND PUMPS TO	O CONTROL PANEL. P	PUMP MOTORS AND) FLOATS BY	/ MECHANICAL (CONTRACTOR.	· · ·	~~~~~	~~~~~	~~~~~	~~~~~	~~~~	m	9. CONNECT 10. PROVIDE 11. CHEMIC	CONDESNATE P AND INSTALL NE AL FEEDER CIRCU	UMP ON LINE W 20A/1P CIF IIT SHALL BE	ROUTED THRO	UNNECT ON UNIT. R IN EXISTING SIEMENS PANEL DUGH CHEMICAL CONTROLLER. REFER	R TO AQ600 FOR A	DDITIONA	_ INFORMATION.						
<u>3</u> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					······		·····		······	·····	mmm	·····	·····		·····	·····		۶ <u> </u>													

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427 S. COLLEGE AV INDIANAPOLIS, IN 4620

Indianapolis

PANEL:		1LA1							~~		
NAC 11 INT 1 INT			_		125 AMPERE			VOLTAGE: 120/2	08		
		SURFAC	iE	K.A.I.C.:	22			PHASE: 3			
			OVER 100% BATED NEUTRAL BUS	FED FROM:	SEE RISER			WIRE: 4+G			
			oven, 100% hated neo mae boo								
REMARKS	СКТ NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTIO	DN BRK	SIZE C	скт NO	REMARKS
	1	20A/1P	REC RM. A114A	720 0				20A	'1P	2	1
	3	20A/1P	REC RM. A114A		720 0			20A	'1P	4	1
	5	20A/1P	HS-1.1 & HS-1.2 - RM. 114A		-	240 0		20A	'1P	6	1
	7	20A/1P	HS-2.1 & HS-2.2 - RM. 114A	240 0	-			20A	'1P	8	1
	9	20A/1P	CHEMICAL TREAT CONTROLLER - RM		1500 0			20A	'1P	10	1
	11	20A/1P	CHEMICAL TREAT CONTROLLER - RM			1500 0		20A	'1P	12	1
	13	20A/1P	TEMPERATURE CONTROL PANEL - RM	1500 0				20A	'1P	14	1
	15	20A/1P	TEMPERATURE CONTROL PANEL - RM		1500 0			20A	'1P	16	1
	17	20A/1P	TEMPERATURE CONTROL PANEL - RM			1501 0		20A	'1P	18	1
	19	30A/1P	EF-A1	1920 0				20A	'1P	20	1
	21	20A/1P	BOILER SHUT-OFF		500 0			20A	'1P	22	1
	23	20A/1P	CONTROL VALVE		-	250 0		20A	'1P	24	1
	25	20A/1P	CONTROL VALVES B-1,B-2,B-3 & B-4	1000 0				20A	'1P	26	1
	27	20A/1P	CONTROL VALVE HX-1.1 & HX-1.2		1000 0			20A	'1P	28	1
	29	20A/1P	CONTROL VALVES HX-2.1 & HX-2.2			1000 0		20A	'1P	30	1
	31	20A/1P	FLOW METER	500 0				20A	'1P	32	1
	33	20A/1P	VIBRATION SWITCH - CT1		696 0			20A	'1P	34	1
	35	20A/1P	VIBRATION SWITCH - CT1			696 0		20A	'1P	36	1
	37	20A/1P	VIBRATION SWITCH - CT2	696 0				20A	'1P	38	1
	39	20A/1P	VIBRATION SWITCH - CT2		696 0			20A	'1P	40	1
1	41	20A/1P				0		20A	'1P	42	1
				6,576	6,612	5,187					
	SPARE CI		AKER AS INDICATED IN SPACE SPARE O	RCUIT BREAK	FR SHALL BE T		F OFF POSITION AT FND OF (CONSTRUCTION			
2. CIRCUIT	BREAKER 1	TO BE GFCI									

PANEL: MOUNTING PANEL RE HINGED DO	G TYPE: MARKS: DOR WITHII	1LK1 SURFAC N HINGED C	E COVER, 100% RATED NEUTRAL BUS, FEED	MLO: K.A.I.C.: FED FROM: D THROUGH L	225 AMPERE 22 SEE RISER JGS		VOLTAGE PHASE: WIRE:	: 120/208 3 4+G		
REMARKS	CKT NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE	СКТ NO	RE
	1	20A/1P	REC RM. K107	720	-	()	REC RM. K108	20A/1P	2	
	3	20A/1P	REC RM. K107	000	720		REC RM. K108	20A/1P	4	
	5	20A/1P	REC RM. K107	-		720	REC RM. K108	20A/1P	6	
	7	20A/1P	REC RM. K109	720		120	REC RM. K110	20A/1P	8	
	9	20A/1P	REC RM. K109	120	720		REC RM. K110	20A/1P	10	
	11	20A/1P	REC RM. K109	-		720	REC RM. K110	20A/1P	12	
	13	20A/1P	REC RM. K111	900			REC RM. K112	20A/1P	14	
	15	20A/1P	REC RM. K111	0+0	720		REC RM. K112	20A/1P	16	
	17	20A/1P	REC RM. K111			540	REC RM. K112	20A/1P	18	
	19	20A/1P	ELEV. HVAC & LIGHTS - RM. K113	150		500	REC RM. K1100	20A/1P	20	
	21	20A/1P	REC RM. K113	900	1500	-	REC RM. K1000	20A/1P	22	
	23	20A/1P	ELEV PIT REC RM. K115	-	120	1500	REC RM. M102	20A/1P	24	
	25	20A/1P	REC RMS. M1000 & M1000A	900		540	REC RM. M102	20A/1P	26	
	27	20A/1P	ADA OPERATOR RMS. M1000 & M1000A	4	1000	-	REC RM. M102	20A/1P	28	
	29	20A/1P	PIT LIGHTS - RM. K113	-		102	REC RM. M103	20A/1P	30	
	31	20A/1P	ELEV. EQUIP. LIGHTS - RM. K113	62		1300	REC RM. M101	20A/1P	32	
	33	20A/1P	REC RM. M1000	1000	360		EF-M1	20A/1P	34	
	35	20A/1P	REC RMS. M1002, M104 & ST102	-	-	540	EF-M2	25A/1P	36	
	37	20A/1P	DISPLAY CASE REC RMS. M1000 &	1080		1050	PH-1 - RM. M101	20A/1P	38	
	39	20A/1P	REC RM. M100	1300	540		CONTROLLER - RM. M101	20A/1P	40	
	41	20A/1P	REC RM. M100	-	-	540	CF2 - RM. M101A	20A/1P	42	
	43	20A/1P	REC RM. M100	540		1300	CF1 - RM. M101	20A/1P	44	
2	45	20A/1P	ELECTRIC WATER COOLER RM. M100	1300	500		TF-K1	20A/1P	46	
	47	20A/1P	REC RM. M100	-		360	PHP-1 CONTACTOR	20A/1P	48	
	49	20A/1P	VAV-2	1000		000	REC RM. M101A	20A/1P	50	
	51			1000	1000		FLOW METER - RM. M101	20A/1P	52	
	53	- 20A/2P	UH-M1		-	1000	REC RM. M101	20A/1P	54	
1	55	20A/1P		0	-		SEP-1 - PUMP 1	25A/1P	56	
1	57	20A/1P			0		SEP-1 - PUMP 2	25A/1P	58	
1	59	20A/1P				0 450	SEP-1 CONTROL PANEL	20A/1P	60	
1	61	20A/1P		0				20A/1P	62	
1	63	20A/1P			0			20A/1P	64	
1	65	20A/1P			-	0		20A/1P	66	
1	67	20A/1P		0				20A/1P	68	
1	69	20A/1P			0			20A/1P	70	
1	71	20A/1P				0		20A/1P	72	

1. PROVIDE SPARE CIRCUIT BREAKER, AS INDICATED, IN SPACE. SPARE CIRCUIT BREAKER SHALL BE TURNED IN THE OFF POSITION 2. CIRCUIT BREAKER TO BE GFCI TYPE.

	41.14		MIO				T . 100/000	DANEL	11.10		MLO				100/000	
	SUBEACE			225 AMPERE			aE: 120/208		ILJ2 SUBEACE			225 AMPERE			3	
PANEL REMARKS:	SOUL YOF		FED FROM:	SEE RISER		WIRE:	4+G	PANEL REMARKS:			FED FROM:	SEE RISER		WIRE:	3 4+G	
HINGED DOOR WIT	HIN HINGED CO	OVER, 100% RATED NEUTRAL BUS						HINGED DOOR WITH	N HINGED CO	OVER, 100% RATED NEUTRAL BUS						
REMARKS CKT N	D. BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE CKT NO REMARKS	REMARKS CKT NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE CKT	NO RI
1	20A/1P	REC RM. J111	720 1080			REC RMS. J1100, J118, & J122	20A/1P 2	1	20A/1P	REC RM. J101	720 720	-		REC RM. J102	20A/1P 2	:
3	20A/1P	REC RM. J111		720 1080		REC RM. J130	20A/1P 4	3	20A/1P	REC RM. J101		540 900	-	REC RM. J102	20A/1P 4	
5	20A/1P	REC RM. J111			720 1080	REC RM. J132	20A/1P 6	5	20A/1P	REC RM. J101			720 720	REC RM. J102	20A/1P 6	<i>i</i>
7	20A/1P	REC RM. J111	720 1080	_		REC RM. J134	20A/1P 8	7	20A/1P	REC RM. J103	720 540	_		RECRM. J104	20A/1P 8	,
9	20A/1P	REC RM. J111		720 1080		REC RM. J136	20A/1P 10	9	20A/1P	REC RM. J103		720 360	-	RECRM. J104	20A/1P 10	с
11	20A/1P	REC RM. K105			720 360	REC RM. J126	20A/1P 12	11	20A/1P	REC RM. J103			540 360	- RECRM. J104	20A/1P 12	2
13	20A/1P	REC RM. K105	720 360	-		REC RM. J126	20A/1P 14	13	20A/1P	REC RM. J105	720 360	_		RECRM. J104	20A/1P 14	4
15	20A/1P	REC RM. K105		720 540		REC RM. J126	20A/1P 16	15	20A/1P	REC RM. J105		720 1500	-	RECRM. J104	20A/1P 16	3
17	20A/1P	REC RM. K101			720 360	REC RM. J126	20A/1P 18	17	20A/1P	REC RM. J105			900 1500	RECRM. J104	20A/1P 18	3
19	20A/1P	REC RM. K101	720 720	-		REC RMS. J1100 & J128	20A/1P 20	19	20A/1P	REC RM. J107	720 540	-		RECRM. J104	20A/1P 20	3
21	20A/1P	REC RM. K101		720 720		REC RM. K102	20A/1P 22	21	20A/1P	REC RM. J107		720 1500	-	RECRM. J106	20A/1P 22	2
23	20A/1P	REC RM. K103			720 360	REC RM. K102	20A/1P 24	23	20A/1P	REC RM. J107			720 1500	RECRM. J108	20A/1P 24	4
25	20A/1P	REC RM. K103	360 900	-		REC RM. K102	20A/1P 26	25	20A/1P	REC RM. J109	720 720	_		REC RMS. L110, J112, J1200 & ST101	20A/1P 26	3
27	20A/1P	REC RM. K103		720 360		REC RM. K104	20A/1P 28	27	20A/1P	REC RM. J109		720 1500		REC RM. J112	20A/1P 28	3
29	25A/1P	EF-J1			1656 720	REC RM. K104	20A/1P 30	29	20A/1P	REC RM. J109			720 720	REC RM. J114	20A/1P 30	2
2 31	20A/1P E	ELECTRIC WATER COOLERS RM. J1300	0 1000 900	-		REC RM. K104	20A/1P 32	31	20A/1P	REC RMS. J1100 & J1100A	540 360			REC RM. J114	20A/1P 32	2
33	20A/1P	CONTRACTOR BC2 & SC2		500 720		REC RM. K106	20A/1P 34	33	20A/1P	REC RM. J1000		720 720		REC RM. J114	20A/1P 34	4
1 35	20A/1P				0 360	REC RM. K106	20A/1P 36	35	15A/2P				1134 720	- REC RM. J116	20A/1P 36	3
1 37	20A/1P		0 900	-		REC RM. K106	20A/1P 38	37	IJA/ZF	HF-01.00	1134 900	_		REC RM. J116	20A/1P 38	3
1 39	20A/1P			0 1500		REC RM. J102	20A/1P 40	1 39	20A/1P			0 360		REC RM. J116	20A/1P 40	3
1 41	20A/1P				0 1500	REC RM. J102	20A/1P 42	1 41	20A/1P				0	-	20A/1P 42	2
1 43	20A/1P		0 1500	-		REC RM. J102	20A/1P 44	1 43	20A/1P		0	-			20A/1P 44	4
1 45	20A/1P			0 1500		REC RM. J102	20A/1P 46	1 45	20A/1P			0	-		20A/1P 46	3
1 47	20A/1P				0 1500	REC RM. J102	20A/1P 48	1 47	20A/1P				0	-	20A/1P 48	3
1 49	20A/1P		0 2500	-			50	1 49	20A/1P		0	_			20A/1P 50	3
1 51	20A/1P			0 2500		neo nivi. J 102	507/21	1 51	20A/1P			0			20A/1P 52	2
1 53	20A/1P				0 1500	REC RM. J102	20A/1P 54	1 53	20A/1P				0	_	20A/1P 54	4
1 55	20A/1P		0 1500			REC RM. J102	20A/1P 56	1 55	20A/1P		0				20A/1P 56	3
1 57	20A/1P			0 1500		REC RM. J102	20A/1P 58	1 57	20A/1P			0			20A/1P 58	3
1 59	20A/1P				0		20A/1P 60 1	1 59	20A/1P				0		20A/1P 60	3
REMARKS	I		15,680	15,600	12,276			REMARKS			9,414	10,980	10,254			
															TION	

1. PROVIDE SPARE CIRCUIT BREAKER, AS INDICATED, IN SPACE. SPARE CIRCUIT BREAKER SHALL BE TURNED IN THE OFF POSITION AT END OF CONSTRUCTION. 2. CIRCUIT BREAKER TO BE GFCI TYPE.

ON AT	END	OF	CONSTRUCTION.

PANEL:	TVDE	1LL1		MLO:	225 AMPERE		VOLTAGE	: 120/208		PANEL:	1LL2		MLO:	225 AMPERE		VOLTAG	E: 120/208		
	ITYPE:	SURFAC	E	K.A.I.C.:	22 SEE RISER			3 4+G		MOUNTING TYPE:	SURFAC	E	K.A.I.C.:	22		PHASE:	3		
HINGED DO	OR WITH	N HINGED C	OVER, 100% RATED NEUTRAL BUS, FEEI	D THROUGH LL	JGS		with.	4+0					FED FROM:	SEE RISER		WIRE:	4+G		
					1							Soven, 100% hated neothae bos							
REMARKS	CKT NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE	CKT NO REMARKS	REMARKS CKT NO.	BRK SIZE	LOAD DESCRIPTION	PHASE A (VA)	PHASE B (VA)	PHASE C (VA)	LOAD DESCRIPTION	BRK SIZE		וכ
	1	20A/1P	REC EXTERIOR	360 720	_		REC RMS. L1000, L116, & L117	20A/1P	2	1	20A/1P	REC RM. 114	1500	-			20A/1P	2	
	3	20A/1P	ADA OPERATOR - RM. L1000 & L1000		1000 1500		REC RM. L114	20A/1P	4	3	20A/1P	REC RM. 114		1500	-		20A/1P	4	-
	5	20A/1P	REC RMS. L1000, L1000A, & L100B			540 1500	REC RM. L115	20A/1P	6	5	20A/1P	REC RM. 114		-	360		20A/1P	6	
	7	20A/1P	REC RMS. L1000, L1000A, L101	540 1500	-	-	REC RM. L117	20A/1P	8	7	20A/1P	REC RM. 114	1500 0	-			20A/1P	8	
	9	20A/1P	REC RM. L102		540 1500		REC RM. L117	20A/1P	10	9	20A/1P	REC RM. 114		1500 0			20A/1P	10	
	11	20A/1P	REC RM. L102			360 1500	REC RM. L117	20A/1P	12	11	20A/1P	REC RM. 114		-	1500		20A/1P	12	
	13	20A/1P	REC RM. L102	360 1500	_		REC RM. L117	20A/1P	14	13	20A/1P	REC RM. 114	1500	-			20A/1P	14	
	15	20A/1P	REC RM. L103	_	1500 1500		REC RM. L117	20A/1P	16	15	20A/1P	REC RM. 114		1500 0			20A/1P	16	
	17	20A/1P	REC RM. L104		_	900 1500	REC RM. L117	20A/1P	18	17	20A/1P	REC RM. 114		-	1500 0		20A/1P	18	
	19	20A/1P	REC RMS. L105, L106, & L107	1500	4500		REC RM. L117	20A/1P	20	19	20A/1P	REC RM. 114	1500 0				20A/1P	20	
	21	20A/1P	REC RM. L108	_	1500	1500	REC RM. L117	20A/1P	22	21	20A/1P	REC RM. 114		1500 0			20A/1P	22	
	23	20A/1P	REC RM. L108	1000		1500	REC RM. L117	20A/1P	24	23	20A/1P	REC RM. 114		-	1500 0		20A/1P	24	
2	25	20A/1P	SWIM SUITE EXTRACTOR RM. L108	2500	1500		REC RM. L117	30A/2P	26	25	20A/1P	REC RM. 114	1500 0				20A/1P	26	
	27	20A/1P	REC RM. L108	_	2500	1500		-	28	27	20A/1P	REC RM. 114		1500 0			20A/1P	28	
	29	20A/1P	REC RM. L108	1500		540	REC RMS. L1000, L118, & L120	20A/1P	30	29	20A/1P	REC RM. 114		_	1500 0		20A/1P	30	
	31	20A/1P	REC RM. L108	1500	1500		REC RM. L119	20A/1P	32	31	20A/1P	REC RM. 114	1500 0				20A/1P	32	
	33	20A/1P	REC RM. L108	-	720	E 40	REC RMS. L1000 & L113	20A/1P	34	33	20A/1P	REC RM. 115		1500 0			20A/1P	34	
	35	20A/1P	REC RMS. L110, L111, & L112	1500	_	1080	REC RM. L1000	20A/1P	36	35	20A/1P	OVERHEAD DOOR - RM. 114			1176 0		20A/1P	36	
	37	20A/1P	REC RM. L109	540	1022	-	REC RMS. M105 & M106	20A/1P	38	37	20A/1P	ELECTRIC WATER COOLER - RM. K100	0 1000				20A/1P	38	
2	39	20A/1P	SWIM SUIT EXTRACTOR RM. L109	-	696	1500	TF-L1	20A/1P	40		20A/1P	FIRE ALRM CONTROL PANEL		1500 0			20A/1P	40	
	41	20A/1P	REC RM. L109	1500		1500	VAV-1 - RM. L104	20A/1P	42	41	20A/1P	FIRE ALARM NAC PANEL		-	1500 0		20A/1P	42	
	43	20A/1P	REC RM. L109	500	1500		CONTACRTORS SC1, SL1, BC1	20A/1P	44	43	20A/1P	TRACK LIGHTING - RM. K113	1350 0	_			20A/1P	44	
	45	20A/1P	REC RM. L109	-	500	1500	1RPL1 POWER	20A/1P	46	45	20A/1P	TRACK LIGTHTING - RM. L1000		1050 0			20A/1P	46	
	47	20A/1P	REC RM. L109	1500		0		20A/1P	48 1	47	20A/1P	REC STAIR RISER RM. K1000			540 0		20A/1P	48	
	49	20A/1P	REC RM. L109	0	540			20A/1P	50 1	1 49	20A/1P		0				20A/1P	50	
	51	20A/1P	REC RM. M100	-	0	540		20A/1P	52 1	1 51	20A/1P			0			20A/1P	52	
	53	20A/1P	REC RM. M100	540		0		20A/1P	54 1	1 53	20A/1P				0		20A/1P	54	
	55	20A/1P	REC RM. M100	0	500	-		20A/1P	56 1	1 55	20A/1P		0				20A/1P	56	
2	57	20A/1P	REC RM. M100		0	540		20A/1P	58 1	1 57	20A/1P			0			20A/1P	58	
	59	20A/1P	REC RM. M100	10,622	01 509	0		20A/1P	60 1	1 59	20A/1P				0		20A/1P	60	
REMARKS				19,032	21,320	10,040							11,350	11,550	9,576				
1. PROVIDE 2. CIRCUIT	SPARE C BREAKER	IRCUIT BREA TO BE GFCI	AKER, AS INDICATED, IN SPACE. SPARE C TYPE.	CIRCUIT BREAK	ER SHALL BE	TURNED IN TH	E OFF POSITION AT END OF CONSTRUC	CTION.		1. PROVIDE SPARE CI 2. CIRCUIT BREAKER	RCUIT BRE/ TO BE GFC	AKER, AS INDICATED, IN SPACE. SPARE I TYPE.	CIRCUIT BREAK	ER SHALL BE T	JRNED IN THE	OFF POSITION AT END OF CONSTRU	CTION.		

1. PROVIDE SPARE CIRCUIT BREAKER, AS INDICATED, IN SPACE. SPARE CIRCUIT BREAKER SHALL BE TURNED IN THE OFF POSITION AT END OF CONSTRUCTION. 2. CIRCUIT BREAKER TO BE GFCI TYPE.

SPECIFICATIONS:

1) N/A

DRAWINGS:

1) N/A

BIDDER QUESITONS:

- 1) Does the owner need licensing provided with the Airtame or is that owner-furnished? Also, confirm Airtame Ethernet Adapter is desired and not Airtame POE Ethernet Adapter. (Wireless Presentation Receiver 27 41 16 2.5)
 - a) Yes, please provide proper licensing for all Airtime devices provided. Coordinate with owner directly for licensing account information. The Airtame PoE Ethernet Adapter shall be provided.
- 2) Can we get some clarification on the flat panel displays? Not finding an 18/5 rating, only 16/7 or 24/7. Also, is the contrast ratio requirement met by dynamic contrast ratio or just static? (Flat Panel Display 27 41 16 2.15)
 - a) MON (monitor) locations are acceptable to be 16/7 rated, with DS (digital signage) location requiring the 24/7 rating. Contrast ratio requirement is meant to be met by the static contrast ration. Displays with a 4000:1 static contrast ratio will be deemed acceptable.
- 3) Speaking of displays (MON and DS), having trouble finding a display/mount combination that meets all of the requirements of 4" depth max, tilt +5 to -20, and non-articulating.
 - a) Are the mounts going to be recessed in the wall in some way?
 - i) Mounts will not be recessed within the wall. Line item is listed as a general note to keep ADA clearances in mind when installing.
 - b) Can the science lab displays be exempt from 4" since they are above counters, and can the DS displays be exempt from tilt range? What about the flex spaces and small group spaces? Will they be in egress areas or have tables in front of them?
 - i) Science labs would be exempt from 4" ADA guideline, as the counters would stick out further than the display to prevent a vision impaired person from hitting their head on the display. DS displays shall have tilt option mounts, as the owner may desire to tilt them slightly downwards. Flex and small group displays shall have tilt option mounts, as the owner may desire to tilt them slightly downwards. All displays shall be mounted at the standard 0 degree tilt unless otherwise requested by the owner. Tables placed in front of the display would negate ADA clearance requirements.

- c) Considering the Sony BZ40H series of commercial displays and Chief LTM1U mounts. Acceptable?
 - i) The Sony BZ40H series and Chief LTM1U mounts are acceptable.
- 4) Sheet T306, Digital Signal Processor Type is not specified. Is this Type 1 or Type 2?a) This shall be digital signal processor type 1, the QSYS Core 110f or similar.
- 5) Is Extron ECM S10 an acceptable partition sensor alternative? (Partition Sensor 27 41 16 2.14)
 a) The Extron ECM S10 is an acceptable alternative.
- 6) Not finding a paging amplifier from Care Hawk to meet the specifications. Is the Care Hawk DAF100-70V acceptable? (Paging Amplifier 27 51 23 2.5)
 - a) The CareHawk DAF100-70V is acceptable.

SHEET INDEX:

N/A