

Bid Package 2 | Addendum No. 4
for
Construction of
St. Croix County Health Center Additions and Renovation
Project No. 146038

Date: July 20, 2015

Bids for Bid Package 2 due: Friday, July 24, 2015 at 2:00 p.m. (CST)

CLARIFICATIONS FOR ALL BIDDERS:

- Acknowledge receipt of all issued Addenda
- Bid Security is no longer required

NOTE: This Addendum may apply to any or all contracts and/or subcontracts.

ATTACHMENTS

The following document(s) hereby become a part of this Addendum, the Bidding Documents, and the Contract Documents for the Project.

SHEET M201, rev. #2
SHEET M202, rev. #1
SHEET M401, rev. #2

SECTION 00 11 16 INVITATION TO BID – 1 page
SECTION 00 21 13 INSTRUCTION TO BIDDERS – 5 pages
SECTION 00 41 00 BID FORM – 3 pages

DRAWINGS

SHEET M201 (reissued)

Add note and duct to EF-4 (Oxy A231)

SHEET M202 (reissued)

Add note and duct to EF-5 (Oxy B256)
Add note and duct to EF-6 (Oxy B134)

SHEET M401 (reissued)

- Revise Attenuator Schedule
- Add an additional Attenuator Schedule
- Revise P-13 on Circulating Pump Schedule
- Revise CUH-14 on Cabinet Unit Heater Schedule
- Revise Radiant Heating Panel Schedule

SHEET M208 (not reissued)

At inlet to Sidewall Exhaust Fan #5, label duct size 12x12.

PROJECT MANUAL

SECTION 00 11 16 INVITATION TO BID (reissued)

Omit “A bid bond will be required as in accordance with Section 00 21 13 – Instructions to Bidders, item #7” from section.

SECTION 00 21 13 INSTRUCTION TO BIDDERS (reissued)

Omit “item #7, Bid Security” from section.

SECTION 00 41 BID FORM (reissued)

Omit “Performance Bond and Labor and Material Payment Bond” from section.

SECTION 09 51 13 ACOUSTICAL PANEL CEILINGS (not reissued)

2.3 ACOUSTICAL PANELS

- B. ACT-1:
 - 1. revise product to: #1774, Dune, 2’x2’, angled tegular

SECTION 23 34 23 HVAC POWER VENTILATORS (not reissued)

At section 2.4, add item G to read:

- “G. Basis of design: Tjernlund DE160, 160 CFM, 0.25” static, HP = 50 watts, 120/1/60. Install dryer fans where noted on the drawings.”

APPROVED EQUALS

The following manufacturers have applied for “or equal” approval and their quotation(s) may be used by contractors when bidding the Project. It is the duty of the contractor to ascertain that the equipment, workmanship, and products offered do indeed meet the specifications in all respects since this approval does not waive any part of the specification, but indicates that the Bidder has shown he understands the specification and is able to provide equipment, workmanship, and products to fulfill those requirements and can adapt to building dimensions.

Section No.	Item	Manufacturer
09 22 16	2.2	Custom Stud Inc.
09 51 13	2.3.B, ACT-1:	Revise to: USG “Olympia Micro Climaplus” #4221

End

**SECTION 00 11 16
INVITATION TO BID**

PROJECT: Bid Package # 2
St. Croix County Health Center Additions and Renovation
New Richmond, WI

BID DEADLINE: Friday, July 24, 2015, @ 2:00 p.m. local time

BID TO: St. Croix County Facilities Department
Attn: Monica Lucht
1101 Carmichael Road – Suite G315
Hudson, WI 54016

or

Fax: (715) 377-5818

or

Email: bids@co.saint-croix.wi.us

Sealed bids for the above project will be received, on behalf of the Owner, by the Market & Johnson, Inc., at the above location, until the Bid Deadline. All bids must be submitted on the bid form supplied and in accordance to the Work Categories outlined in the specifications. Facsimile bids will be accepted.

Bids will be opened publicly.

Bids shall be submitted in accordance with the documents prepared by Horty Elving & Associates, Inc. and dated June 23, 2015.

In general, the project consists of new construction of a 50 bed skilled nursing facility and 10 bed Dementia/mental health crisis unit, and renovation of the existing facility into a 40 bed CBRF per the final program approved by the County Board..

A pre-bid meeting will be held at the St. Croix County Health Center, 1445 N. 4th St., New Richmond, WI 54017 on Wednesday, July 1 @ 10:00 AM

Bid documents may be examined at the following locations: Market & Johnson's Office, Eau Claire, WI or Oakdale, MN; Minnesota Builders Exchange and the Northwest Builders Exchange.

Electronic bid documents can be obtained by contacting Market & Johnson at 715-834-1213, and an email will be sent with a link to access the plans. (If using the electronic website, addenda will be posted to this site and it is the bidder's responsibility to check for addenda issued.)

~~A bid bond will be required as in accordance with Section 00 21 13 – Instructions to Bidders, item #7.~~

The Owner or Construction Manager may contract with the successful bidder. The Owner reserves the right to reject any or all bids, to waive informalities in any bid and to accept any bid which the Owner may determine to be in its best interest.

No proposal may be withdrawn for a period of 120 days after opening of the proposals without consent of the Owner.

SECTION 00 21 13 INSTRUCTIONS TO BIDDERS

Index

- | | |
|---|--|
| 1. Receipt and Opening of Bid Proposals | 10. Submission of Post-Bid Information |
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| 4. Requirements of Signing | 13. Interpretations, Discrepancies and Omissions |
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| 9. Acceptance and Rejection of Bids | 18. Laws, Permits, Licenses and Regulations |

1. Receipt and Opening of Bid Proposals

Market & Johnson, Inc. requests Bid Proposals for the construction of St. Croix County Health Center – Additions and Renovation.

Bid Proposals will be received as noted in the Invitation to Bid. The Bid Proposals will be opened in public by Market & Johnson.

Bid Proposals can be emailed in .pdf format to bids@co.saint-croix.wi.us, or faxed to (715) 377-5818, or may be submitted in sealed envelope to St. Croix County Facilities Department, Attn: Monica Lucht, 1101 Carmichael Road – Suite G315, Hudson, WI 54016. Bid proposal shall be designated as “Bid Proposal for St. Croix County Health Center – Additions and Renovation”

2. Pre-Bid Conference

A pre-bid conference will be held at the St. Croix County Health Center, 1445 N. 4th St., New Richmond, WI 54017 on Wednesday, July 1 @ 10:00 AM.

3. Method of Bidding

Each Bid shall be based on the provisions in the Instruction to Bidders, General Conditions of the Contract for Construction, Supplementary General Conditions, Special Conditions, Divisions 00 and 01 and Specification Sections and related Drawings.

4. Requirements of Signing

Each Bid must include the full business address of the Bidder as well as the telephone and fax numbers, contact and authorized signature.

When requested by Market & Johnson, satisfactory evidence of agency or authority of any person signing on behalf of another must be furnished.

5. Furnish and Install

“Furnish and Install” means to provide all labor, materials, insurance, taxes, equipment, etc. to complete the described work, per the plans and specifications.

“Install Only” means receive delivery on board, unload, uncrate and install, including all labor, miscellaneous materials, insurance, taxes, and equipment necessary for materials supplied by others. This also includes removal of debris generated by materials supplied by others.

“Furnish Only” means deliver, tax and freight included (FOB job site), materials to the Owner’s facility for installation by others. Delivery shall be made during standard working hours and notification of delivery shall be given to Market & Johnson 72 hours in advance.

Specification sections are used to designate areas of work. All Bidders are required to review all specifications and plan documents in order to evaluate the extent of their work.

Specification sections that are included in these specifications but are not itemized within any specific Work Category are the full responsibility of all Subcontractors as they relate to their primary scope of work.

Assignments of specification sections to a given Work Category are for purposes of indicating primary responsibility for such work only. The number designation for a Work Category does not relieve other Subcontractors from providing work for this specification section as it relates to their primary scope of work.

6. Bid Form

Bids must be submitted on the Bid Form provided in this manual. The Bid Form must be complete with all blank spaces filled in. Any incomplete Bids may be disqualified.

Bidder shall submit separate Bid Form for each Work Category being bid upon or for each combination bid being submitted.

Additional copies of the Bid Form are available at the office of Market & Johnson, Inc.

~~7. Bid Security~~

~~Bidders in selected Work Categories shall submit a bid bond or certified check in the amount of ten percent (10%) of the maximum amount of the bid. Bid bond shall be AIA Document A310 or equivalent form. Failure to include this bid security with the Bid Form will result in disqualification.~~

~~Certified checks will be returned after the Owner has a contractual agreement for similar work category or for a period of 120 days.~~

8. Withdrawal or Revision of Bids

Bids may be withdrawn or revised by written request received from Bidder prior to the time for opening bids. Negligence on the part of the Bidder in preparing the Bid infers no right for withdrawal of the Bid after it has been opened.

All Bids shall be effective and open for acceptance for a period of 120 days after the date and time set for receipt of Bids.

9. Acceptance and Rejection of Bids

Market & Johnson reserves the right to reject any or all bids or to waive any informalities in any Bid or to accept any Bid which will be in the best interests of our firm and the Owner. In addition, the Bidder recognizes the right of Market & Johnson to reject a Bid if the Bidder failed to furnish any of the data required by the Bidding Documents, or if the Bid is in any way incomplete or irregular. Market & Johnson also reserves unrestricted privilege to accept or reject any given prices for additions to or deductions from work as given in Bid.

10. Post-Bid/Pre-Award Information and Submittal Requirements

- A. Bidders to whom award of a Contract is under consideration shall submit to Market & Johnson, upon request, a properly executed AIA Document A305, Contractor's Qualification Statement.
- B. Market & Johnson reserves the right to request copy of the Bidder's audited financial statement, four-year revenue history, overall bonding capacity, and current available bonding capacity. This information will be held confidential, and is a part of Market & Johnson's Subcontractor Evaluation and Selection Process. By virtue of submitting a Bid, this Subcontractor agrees to submit any and all information requested by Market & Johnson as outlined in these Instructions to Bidders, as well as any other information reasonably requested as a part of Market & Johnson's process for evaluating and selecting Subcontractors.
- C. Bidders shall submit to Market & Johnson satisfaction supporting data confirming their ability to furnish a Certificate of Insurance in accordance with the project requirements.
- D. The apparent successful Bidder, within three (3) days after notification, shall submit to Market & Johnson the names and addresses of all proposed Subcontractors and/or vendors within the Work Category. Subcontractors and/or vendors with contracts of \$5,000 or less need not be listed initially.

The Bidder will be required to establish to the satisfaction of Market & Johnson the reliability and responsibility of the proposed Sub-subcontractors and/or Vendors to furnish and perform the work described in the sections of the specifications pertaining to such proposed Subcontractor's respective trades.

If an agreement with Sub-subcontractors and/or Vendor cannot be reached, Market & Johnson reserves the right to delete that particular portion of work from the Subcontract and award separate subcontract for the same.

If construction conditions necessitate, the Subcontractor, at no change in contract price, may make substitution of a Sub-subcontractor and/or Vendor, provided such substitution provided in writing and has been accepted by Market & Johnson and Owner.

- E. Bidders shall submit supporting data confirming their ability to adequately staff the project with qualified labor classifications as may be required to support the project schedule and other project requirements. Specific clarifications may include, but are not limited to qualifications and resumes of project management team with organization chart identifying reporting lines and locations of individuals, whether on site or in your corporate office. Includes as a minimum project manager, field supervisors and trade foremen. Demonstrate the reliability and responsibility of the persons or entities proposed to furnish and perform the Work described in Bidding Documents. Once Bidder's team has been established, this team cannot be changed without written consent of Market & Johnson.

11. Availability of Contract Documents

Contract Documents are available for review and purchase as noted on the Invitation to Bid.

12. Examine Contract Documents and Site

Each Bidder shall read and familiarize themselves with Division 00, Division 01 and applicable Specification Sections. The Bidder shall also examine all drawings. The successful Bidder will be required to perform all the work belonging to the specific Work Category, which is either shown on the Drawings, mentioned in the Specifications, or reasonably implied as necessary to complete the work in the Work Category, including removal of existing work and preparing old work to receive

new. Each bidder shall also review the Subcontract/Purchase Agreement form included within these specifications.

Each bidder shall visit the site to become acquainted with the following: adjacent areas, means of approach to the site, conditions of actual job site, and facilities for delivering, storing, placing and handling of materials and equipment. Bidders shall compare Specifications and Drawings with existing conditions and inform themselves of all conditions affecting execution of work, including other work, if any, being performed.

No consideration will be granted for any alleged misinterpretation or misunderstanding of the work to be done and/or materials or equipment to be furnished.

13. Interpretations, Discrepancies and Omissions

No oral explanation in regard to the meaning of Drawings and Specifications will be made and no oral instructions will be given before award of a contract. Bidders shall bring discrepancies, omissions, conflicts, or doubt as to true meaning of any part of contract documents to Market & Johnson's attention, in writing, at least five (5) days before the due date for bids. Prompt clarifications will immediately be supplied to bidders by Addendum.

Failure to request clarification or interpretation of Contract Documents will not relieve a Subcontractor and/or Vendor of their responsibilities. Signing of the Proposal/Bid Form will imply that the Subcontractor has thorough comprehension of full intent and scope of the Contract Documents.

Neither the Owner or Architect, nor Market & Johnson will be responsible for oral instructions. Only a written interpretation or correction by Addendum shall be binding. No bidder shall rely upon any interpretation or correction given by any other method.

14. Addenda

All addenda issued during the time of bidding shall become part of the Contract Documents and each Addenda shall be acknowledged on the Bid Form. Failure to acknowledge addenda may disqualify bidder.

15. Alternates

Each Bidder must bid on the Alternate(s) listed in the Bid Form that is applicable to their respective Work Category. Alternates will be considered in awarding of the Contracts and Purchase Orders.

Market & Johnson shall be allowed a period of one hundred twenty (120) days after receipt of a signed Subcontract/Purchase Order to accept or reject any or all alternates submitted on the Bid Form.

16. Request for Substitution, Voluntary Alternates

Whenever a material, article, or piece of equipment is identified in the Contract Documents by reference to manufacturer or vendor's names, trade names, catalog numbers, or the like, it is so identified for the purpose of establishing a standard. Any material, article or piece of equipment of other manufacturers or vendors, which will perform adequately the duties imposed by the general design, will be considered equally acceptable provided the material, article or piece of equipment so proposed is, in the opinion of the Architect, of equal substance, appearance and function. Alternate work shall not be performed and substitute or alternate materials or equipment shall not be purchased or installed by the Subcontractor and/or Vendor without the Architect's prior written approval. Base bids must be based upon the item specified, not upon voluntary alternates. Reference Substitution Request Form.

Subcontractors are encouraged to offer voluntary alternates to items specified. Voluntary alternates should list the add or deduct amounts to the base bid for each item and should provide an adequate description of each item or system suggested. The Owner, Architect and Market & Johnson reserve the right to accept or reject any voluntary alternates. If accepted, voluntary alternates will be subject to the requirements for Substitutions.

In the event that a Subcontractor is awarded a contract and submits for approval a material, article or piece of equipment which is considered as unequal to the specified item by the Owner, Architect, and/or Market & Johnson, the Subcontractor shall be required to provide the specified item at no additional cost.

17. Taxes

Each Bidder shall include all taxes required by law in the Bid Proposal. Where the Owner is exempt from payment of state sales tax, the Owner reserves the right to purchase materials for the project.

18. Laws, Permits, Licenses, and Regulations

Attention is particularly directed to the General Conditions for requirements that deal with laws, permits, licenses and regulations.

Subcontractors and/or Vendors shall conform to all applicable federal and state laws, municipal ordinances, rules and regulations or all authorities having jurisdiction over construction, including all construction codes and safety code which may apply to the following:

Performance of the work.

Protection of adjoining and adjacent property.

Maintenance of passageways, guard fences or other protective facilities.

Market & Johnson shall provide the general building permit. Each Subcontractor and/or Vendor shall obtain and pay for all other permits, licenses and approvals for their work and give all notices as required for each specific Work Category.

Subcontractor and/or Vendor shall arrange for all inspections required by federal, state, municipal or other authorities and pay all fees and costs incurred.

**SECTION 00 41 00
BID FORM**

PROJECT: Bid Package #2
St. Croix County Health Center - Additions and Renovation
New Richmond, WI

BID DEADLINE: Friday, July 24, 2015, @ 2:00 p.m. local time

BID TO: St. Croix County Facilities Department
Attn: Monica Lucht
1101 Carmichael Road – Suite G315
Hudson, WI 54016

Or

Fax: (715) 377-5818

Or

Email: bids@co.saint-croix.wi.us

Company Name _____

Business Address _____
Street Address City State Zip

Mailing Address _____
P.O. Box City State Zip

Phone Number () _____ Fax: Number () _____

Contact for Project _____ Email Address: _____

Authorized Signature _____ Title _____
(circle applicable items) Union Non-Union MBE WBE SBE

SEAL IF BID BY A CORPORATION

In strict compliance with the Bidding and Contract Documents entitled St. Croix County Health Center - Additions and Renovation and dated June 23, 2015, as prepared by Harty Elving & Associates, Inc, the undersigned have become thoroughly familiar with the terms and conditions of the proposed Contract Documents, local conditions affecting the Work, fully inspected the particulars of the site, and propose the following bid:

A separate Bid Form should be used for each Work Category or for each combination of Work Categories being bid.

Company Name: _____ Work Category No(s). _____

WORK CATEGORY NUMBER _____

BASE BID: All Work as defined in Work Category Number(s) noted above.

Total Base Bid: \$ _____.

**** Indicate PARTIAL OR COMPLETE (for specified Work Categories ONLY) ****

ALTERNATE BID #1 – Therapy Pool Addition:

Total Alternate Bid: (Add) \$ _____.

ALTERNATE BID #2 – Adult Day Care Remodel:

Total Alternate Bid: (Add) \$ _____.

ALTERNATE BID #3 – Spray Foam Exterior Wall Insulation:

Total Alternate Bid: (Add / Deduct) \$ _____.

ALTERNATE BID #4 – Increase generator size to 600 KW:

Total Alternate Bid: (Add) \$ _____.

ALTERNATE BID #5 – Replace exterior hollow metal doors with FRP doors:

Total Alternate Bid: (Add / Deduct) \$ _____.

ALTERNATE BID #6 – Provide fiberglass shower stalls:

Total Alternate Bid: (Add / Deduct) \$ _____.

Company Name: _____ Work Category No(s). _____

ALTERNATE BID #7 – Nurse Call approved equal:

Total Alternate Bid: (Add / Deduct) \$ _____.

ALTERNATE BID #8 – Omit commercial washer and dryer replacement:

Total Alternate Bid: (Deduct) \$ _____.

ALTERNATE BID #9 – Omit residential appliances:

Total Alternate Bid: (Deduct) \$ _____.

“Install Only” means receive delivery on board, unload, uncrate and install, including all labor, miscellaneous materials, insurance, taxes, and equipment necessary for material supplied by others. This also includes removal of debris generated by materials supplied by others.

“Furnish Only” means deliver, tax and freight includes (FOB job site), materials to the Owner's facility for installation by others. Delivery shall be made during standard working hours and notification of delivery shall be given to Market & Johnson 72 hours in advance.

We acknowledge receipt of Addenda _____ through _____ inclusive.

Performance Bond and Labor and Material Payment Bond

The Bidder can / cannot provide Performance and Payment Bond in favor of St. Croix County and Market & Johnson, **if requested**, in the sum of 100% of the Contract Amount. The premium for any bonds will be paid by the Contractor, separate from the amounts quoted above.

The name of the proposed surety is _____.

To provide Performance and Payment Bonds

Base Bid _____ Add \$ _____

**St. Croix County
BID PACKAGE 2
Health Center Additions & Renovation**
New Richmond, WI

Sheet Revision Schedule

Rev. #	Date	Revision	Description
1	7/14/15	ADDENDUM # 2	H.V.A.C. REVISIONS
2	7/20/15	ADDENDUM # 4	H.V.A.C. REVISIONS

GENERAL NOTES:

DUCT SIZE IS THE SAME AS DIFFUSER NECK SIZE UNLESS OTHERWISE NOTED.
PROVIDE NEW SHUTOFF VALVES AT ALL NEW-TO-EXISTING PIPE CONNECTIONS.

KEY NOTES:

- CONNECT TO EXISTING DUCTWORK, REGISTER OR DIFFUSER AT THIS LOCATION.
- CONNECT TO EXISTING PIPING AT THIS LOCATION.
- EXISTING HYDRONIC HEATING DEVICE (IN TUBE, COIL, ETC), REMOVE EXISTING BALL VALVE, CONTROL VALVE AND FLOW CONTROL VALVE AND REPLACE WITH NEW OF THE SAME SIZE. SEE DETAIL M001A.
- CONNECT NEW 4" H.W.B. & H.V.A.C. TO EXISTING BOILER SYSTEM IN THIS LOCATION. INSTALL NEW AIRFLOW AND PIPE TO EXISTING EXPANSION TANK. INSTALL NEW PUMPS AND NEW EXISTING PIPING. DETAILS M001A.
- DUCT SMOKE DETECTOR FURNISHED AND INSTALLED BY O.M. CO. COORDINATE.
- RETIAL CODE APPROVED FURNISH IMMEDIATELY INSIDE THE BUILDING (AND PRIOR TO BRANCHLINE) AT AN ACCESSIBLE HEIGHT.

DIFFUSER LEGEND

- INDICATES TYPE OF DIFFUSER:
S = SURFACE
L = LAY-IN
EC = EGGS CRATE
 - INDICATES NECK SIZE EITHER SQUARE DIMENSION OR THE DIAMETER.
EC INDICATES EGGS CRATE WITH A LINED SHEET METAL BOX.
 - INDICATES DIFFUSER SIZE, INCHES SQUARE.
- REFER TO RELECTED PLAN FOR EXACT LOCATIONS OF ALL CEILING DIFFUSERS. ALL DIFFUSERS ARE 4"AWAY THROW UNLESS OTHERWISE NOTED ON PLANS BY A HATCHED AREA.

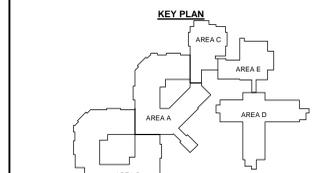
- HATCHED AREA INDICATES ANY INACTIVE PORTION

VARIABLE VOLUME BOX SCHEDULE

THIS SYMBOL ON THE PLANS INDICATES THE VALVE BUNDLE AND THE G.P.M.

TYPE	BOX SIZE	GPM RANGE	BOX TYPE
A-1	24"	0-199	1. VARIABLE VOLUME BOX WITH REHEAT
B	24"	200-399	2. CONSTANT VOLUME BOX WITH REHEAT
C	48"	500-599	3. HIGH - LOW - HIGH - WITH REHEAT
D	60"	1000-1999	4. VARIABLE VOLUME BOX - NO REHEAT
E	84"	2000-2999	
F	108"	3000-3999	
G	144"	4000-4999	

NOTE: BOX SIZE 1" x 1" MAY BE TWO PARALLEL BOXES.



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**H.V.A.C. - VENTILATION
FIRST FLOOR PLAN AREA A SNF &
TOWN CENTER**

Scale: 1/8" = 1'-0"
Date: 06/23/15
Project Number: 146038

M201



**St. Croix County
Health Center Additions & Renovation**
New Richmond, WI

Sheet Revision Schedule

Rev. #	Date	Revision	Description
1	7/20/15	ADDENDUM # 4	H.V.A.C. REVISIONS
2			
3			
4			
5			
6			
7			
8			
9			
10			

GENERAL NOTES:

DUCT SIZE IS THE SAME AS DIFFUSER NECK SIZE UNLESS OTHERWISE NOTED.
PROVIDE NEW SHUTOFF VALVES AT ALL NEW-TO-EXISTING PIPE CONNECTIONS.

KEY NOTES:

- ▽ CONNECT TO EXISTING DUCTWORK, REGISTER OR DIFFUSER AT THIS LOCATION.
- ▽ CONNECT TO EXISTING PIPING AT THIS LOCATION.
- ▽ EXISTING HYDRONIC HEATING DEVICE (IN TUBE, CONV., C.U.H., ETC.) REMOVE EXISTING BALL VALVES, CONTROL VALVES AND FLOW CONTROL VALVES AND REPLACE WITH NEW OF THE SAME SIZE. SEE DETAIL M3016.
- ▽ CONNECT NEW 4" H.V.S. & H.W.R. TO EXISTING BOILER SYSTEM IN THIS LOCATION. INSTALL NEW AIRFLOW AND WIRE TO EXISTING EXPANSION TANK. INSTALL NEW PUMPS AND WIRE INTO EXISTING PIPING. DETAILS M3014.
- ▽ DUCT SMOKE DETECTOR FURNISHED AND INSTALLED BY DIV. 26. COORDINATE.
- ▽ INSTALL CODE APPROVED SHUTOFF IMMEDIATELY INSIDE THE BUILDING (AND PRIOR TO BRANCHLINES) AT AN ACCESSIBLE HEIGHT.

DIFFUSER LEGEND

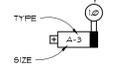
- 2410L INDICATES TYPE OF DIFFUSER:
S = SURFACE
L = LAMINAR
EC = EGG CRATE
- INDICATES NECK SIZE EITHER SQUARE DIMENSION OR THE DIAMETER.
EC INDICATES EGG CRATE WITH A LINED SHEET METAL BOX.
- INDICATES DIFFUSER SIZE, INCHES SQUARE.

REFER TO REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL CEILING DIFFUSERS. ALL DIFFUSERS ARE 4-WAY THROW UNLESS INDICATED OTHERWISE ON PLANS BY A HATCHED AREA.

HATCHED AREA INDICATES ANY INACTIVE PORTION

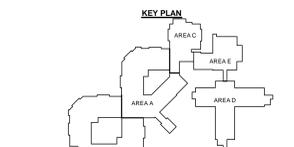
VARIABLE VOLUME BOX SCHEDULE

THIS SYMBOL ON THE PLAN INDICATES THE VALVE BUNDLE AND THE CFM.



BOX SIZE (CFM) RANGE	BOX TYPE
1A' 0" - 199	1. VARIABLE VOLUME BOX WITH REHEAT
1B' 0" - 399	2. CONSTANT VOLUME BOX WITH REHEAT
1C' 0" - 599	3. HIGH + LOW + HIGH + WITH REHEAT
1D' 0" - 799	4. VARIABLE VOLUME BOX - NO REHEAT
1E' 0" - 999	
1F' 0" - 1499	
1G' 0" - 2499	

NOTE: BOX SIZE 1" x 1" MAY BE TWO PARALLEL BOXES

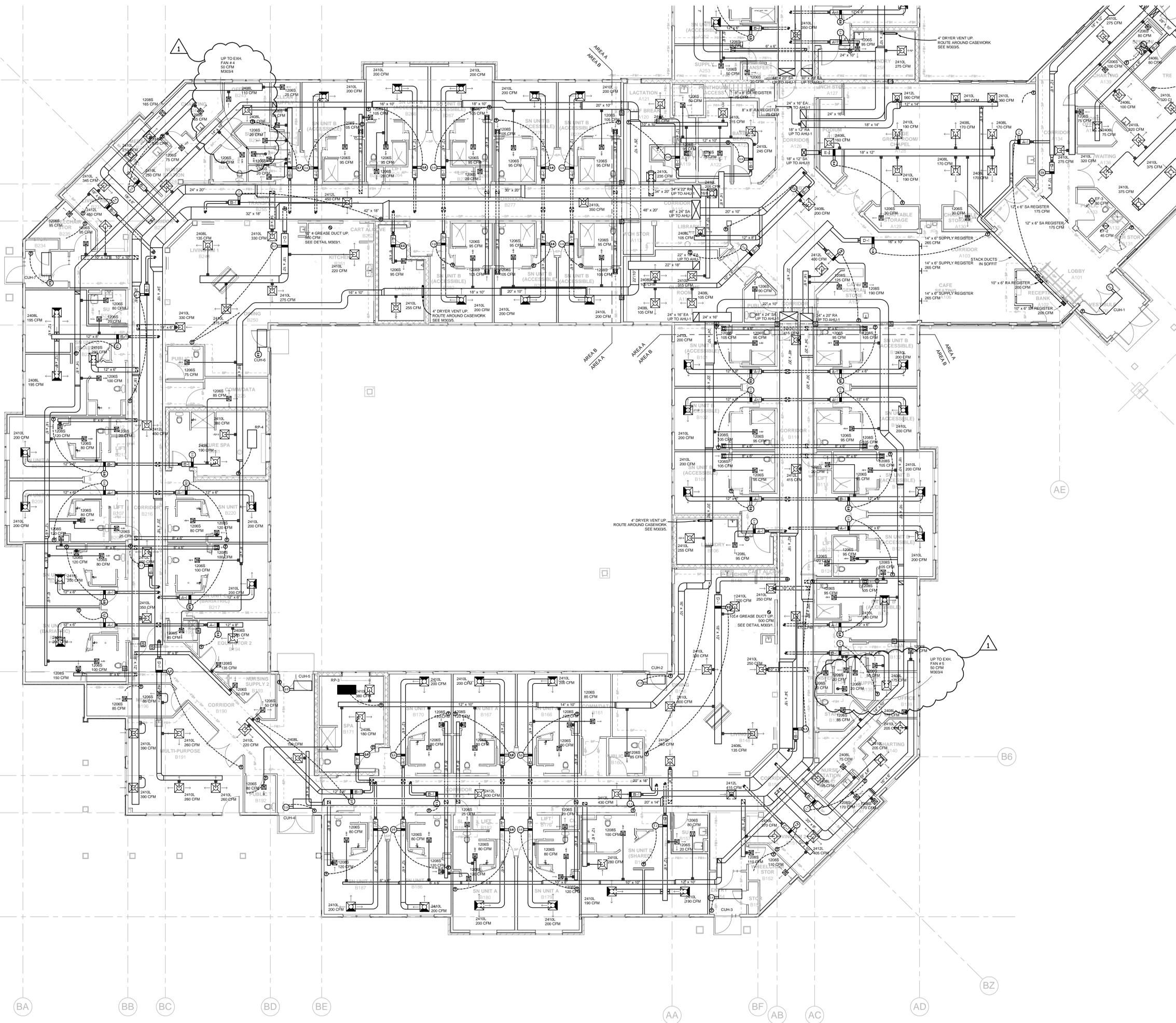


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**H.V.A.C. - VENTILATION
FIRST FLOOR PLAN
AREA B SNF**

Scale: 1/8" = 1'-0"
Date: 06/23/15
Project Number: 146038

M202



St. Croix County
BID PACKAGE 2
Health Center Additions & Renovation
New Richmond, WI

Sheet Revision Schedule

Rev. #	Date	Revision	Description
1	7/14/15	ADDENDUM #2	H.V.A.C. REVISIONS
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

AIR HANDLING UNIT SCHEDULE					
UNIT NUMBER	A.H.U. #1	R.T.U. #2	A.H.U. #3	R.T.U. #4	A.H.U. #5
LOCATION	PENTHOUSE	ROOF AREA C	OD158 MECH	ROOF AREA D	0E120 MECH
SERVES	AREA A & B	AREA A & C	CBRF AREA D	AREA D 2ND FLOOR	AREA E
MODEL NUMBER	TEMPROL - GOVERNAR (5) @ 16" Ø	TEMPROL - GOVERNAR (2) @ 16" Ø	TEMPROL - GOVERNAR (3) @ 20" Ø	TEMPROL - GOVERNAR (3) @ 20" Ø	TEMPROL - GOVERNAR (3) @ 20" Ø
SUPPLY FAN	25,430 CFM @ 5.5" T.S.P.	8700 CFM @ 5" T.S.P.	16,535 CFM @ 5" T.S.P.	9,500 CFM @ 4.75" T.S.P.	16,535 CFM @ 4.5" T.S.P.
CFM - STATIC PRESSURE	10,560 CFM	3,270 CFM	4,630 CFM	3,200 CFM	4,000 CFM
H.P.	6 HP EACH 36 HP TOTAL	6 HP EACH 12 HP TOTAL	7 HP EACH 12 HP TOTAL	8HP EACH 12 HP TOTAL	5 HP EACH 15 HP TOTAL
R.P.A.L	288 RPM	300 RPM	300 RPM	308 RPM	220 RPM
VOLTAGE - TOTAL MCA	460/903 - 54 MCA	460/903 - 54 MCA	460/903 - 54 MCA	460/903 - 54 MCA	460/903 - 54 MCA
FILTER BOX	2" PRE-FILTER (2) @ 20" Ø	2" PRE-FILTER (1) @ 16" Ø	2" PRE-FILTER (3) @ 20" Ø	2" PRE-FILTER (2) @ 20" Ø	NONE
RETURN FAN	17,585 CFM @ 1.5" S.P.	6,995 CFM @ 1.5" S.P.	12,735 CFM @ 1.5" S.P.	6,300 CFM @ 1.5" S.P.	NONE
CFM - STATIC PRESSURE	17,585 CFM	6,995 CFM	12,735 CFM	6,300 CFM	NONE
H.P.	3 HP EACH 9 HP TOTAL	1 @ 1 H.P.	2 HP EACH 3 HP TOTAL	1.5 HP EACH 3 HP TOTAL	
HEATING COIL - EATLAF	12" x 16" 65"	12" x 16" 65"	52" x 72"	41" x 72"	43" x 73"
BTUH OUTPUT - GRM	725,000 BTUH - 156.6 G.P.M.	221,300 BTUH - 47.8 G.P.M.	360,220 BTUH - 36 G.P.M.	319,500 BTUH - 32 G.P.M.	467,906 BTUH - 47 G.P.M.
COOLING COIL - ENTERING AIR	78.5 DB/63.8 WB	77.2 DB/64.4 WB	77.1 DB/64.5 WB	78.4 DB/65.0 WB	78.2 DB/65.0 WB
LEAVING AIR	52.0DB/52.8 WB	52.8DB/52.5 WB	53.1 DB/52.7 WB	52.7 DB/51.7 WB	52.4 WB/51.8 DB
TOTAL MBH - SENSIBLE MBH	814.5 T MBH - 553.7 S MBH	304.9 T MBH - 232.4 S MBH	551.4 T MBH - 398.7 S MBH	353.3 T MBH - 248.5 MBH	528.6 T MBH - 371.7 S MBH
COOLING GPM	173.8	63.1			
EXHAUST FAN	(2) @ 20" Ø	(1) @ 16" Ø			
CFM - STATIC PRESSURE	7,845 CFM @ 3.0" S.P.	1,736 CFM @ 2.5" S.P.			
H.P.	3 HP EACH 9 HP TOTAL	1 HP			
WEIGHT (INCLUDING CURB ON RTU'S)	26,901 LBS	17,600 LBS	14,341 LBS	11,560 LBS	7,600 LBS
NOTES:	1.2,3,4,5,8,9,13,14	1.2,3,4,5,8,12,14	1,4,5,6,7,9,10,13,14	1,4,5,6,7,9,10,13,14	1,4,5,6,7,11,12,14

A.H.U. # 5 ZONES
ZONE # 1 - 1300 CFM SMALL DINING
ZONE # 2 - 4000 CFM MAIN DINING
ZONE # 3 - 3780 CFM KITCHEN
ZONE # 4 - 1415 CFM GROUND FLOOR
ZONE # 5 - 1140 CFM ADMINISTRATION
ZONE # 6 - 2740 CFM ADMINISTRATION

- INSTALL IN ACCORDANCE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ENTERING HOT WATER TEMP IS 100°F. LEAVING TEMP IS 110°F. SELECT COIL WITH 35% PROPYLENE GLYCOL.
- UNIT HAS CHILLED WATER COIL. ENTERING CHILLED WATER TEMP IS 44°F. LEAVING TEMP IS 54°F. SELECT COIL WITH 35% PROPYLENE GLYCOL.
- UNITS SHALL HAVE FANWALL TECHNOLOGY WITH SILENCE AND BACKDRAFT DAMPERS ON EACH FAN SECTION.
- VFD'S FOR SUPPLY AND RETURN FANS, AND ENERGY WHEEL SHALL BE FACTORY FURNISHED AND INSTALLED INTEGRAL TO UNIT. REFER TO 23.05.15.
- UNIT HAS 2-WAY COOLING COIL WITH REMOTE CONDENSING UNIT.
- ENTERING HOT WATER TEMP IS 180°F. LEAVING TEMP IS 160°F. SELECT COIL WITH 35% PROPYLENE GLYCOL.
- UNIT HAS ENERGY RECOVERY WHEEL WITH BYPASS DAMPERS ON SUPPLY SIDE FOR ECONOMIZER. REFER TO HEAT WHEEL SCHEDULE FOR PERFORMANCE.
- UNIT SHALL HAVE SECTION FOR HUMIDIFIERS WITH A MINIMUM WETTING DISTANCE OF 24".
- UNIT IS A MULTIZONE AHU. REFER TO ZONING DETAILS ON UNIT OF SCHEDULE.
- PROVIDE 2-WAY HEATING AND COOLING CONTROL VALVE AT AHU/RTU INDICATED.
- PROVIDE 3-WAY HEATING AND COOLING CONTROL VALVE AT AHU/RTU INDICATED.
- REFER TO FAN SOUND POWER SCHEDULE FOR SOUND REQUIREMENTS.

POWER ROOF VENTILATOR SCHEDULE										
PRV NUMBER	P.R.V. # 1	P.R.V. # 2	P.R.V. # 3	SIDEWALL FAN # 1	SIDEWALL FAN # 2	SIDEWALL FAN # 3	SIDEWALL FAN # 4	SIDEWALL FAN # 5	PRV # 4	PRV # 4
SYSTEM	BUILDING 1D EXHAUST	BUILDING 1D EXHAUST	1E101 OXYGEN	BUILDING 1D EXH. 0D127	BUILDING 1D EXH. 1D121	BUILDING 1D EXH. 1D153	BUILDING 1D EXH. 2D121	BUILDING 1D EXH. 2D153	BUILDING 1A EXH. A162/3	BUILDING 1A EXH. A162/3
CFM	1400 CFM	380 CFM	190 CFM	780 CFM	1	680 CFM	1	730 CFM	100 # HR	100 # HR
S.P.	0.8"	0.75"	0.3"	0.625"	0.625"	0.75"	0.35"	0.75"	0.35"	0.35"
H.P.	1/2 HP	1/4 HP	1/4 HP	1/4 HP	1/4 HP	1/4 HP	1/4 HP	1/4 HP	1/8 HP	1/8 HP
VOLTAGE	110/60/1	110/60/1	110/60/1	110/60/1	110/60/1	110/60/1	110/60/1	110/60/1	110/60/1	110/60/1
MODEL	G-123-VG	G-099-VG	G-070-VG	CW-099-VG	CW-099-VG	CW-099-VG	CW-099-VG	CW-099-VG	G-085-VG	G-085-VG
MANUF	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK	GREENHECK
NOTES	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3

- INSTALL IN ACCORDANCE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- SELECT WITH ECM MOTORS. PROVIDE WITH SPEED CONTROLLER.
- PROVIDE WITH GRAVITY DAMPER AND BROODSCREEN.

CABINET UNIT HEATER SCHEDULE														
UNIT NO.	CUH-1	CUH-2	CUH-3	CUH-4	CUH-5	CUH-6	CUH-7	CUH-8	CUH-9	CUH-10	CUH-11	CUH-12	CUH-13	CUH-14
SERVES	VESTIBULE A100	DINING B146	ENTRY B154	CORRIDOR B190	CORRIDOR B190	DINING B250	ENTRY B233	DINING A208	ENTRY A216	CORRIDOR A160	CORRIDOR C160	SUN ROOM C143	VESTIBULE C135	VEST. 0D115
MANUFACTURER	STERLING													
MODEL NO.	RC-1200-08	RC-1200-08	RC-1200-04											
TYPE	HOT WATER													
CABINET	RECESSED CEILING													
CFM	860	430	860	430	430	430	860	430	860	430	430	430	1060	1060
RPM	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050	1050
HP	1/10, 1/15	1/10	1/10, 1/15	1/10	1/10	1/10	1/10, 1/15	1/10	1/10	1/10	1/10	1/10, 1/15	1/10	1/10
COL ROWS	2	1	1	1	1	1	1	1	1	1	1	1	1	1
VOLTS/PHASE	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1	115/1
MBH	37.6	18.8	37.6	18.8	18.8	18.8	37.6	18.8	37.6	18.8	18.8	18.8	26.5	26.5
GPM	8.6	2.9	8.6	2.9	2.9	2.9	8.6	2.9	8.6	2.9	2.9	2.9	6.1	2.8
NOTES	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4	1,2,4

- INSTALL IN ACCORDANCE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ENTERING HOT WATER TEMP IS 120°F. LEAVING TEMP IS 110°F. SELECT COIL WITH 35% PROPYLENE GLYCOL.
- ENTERING HOT WATER TEMP IS 180°F. LEAVING TEMP IS 160°F. SELECT COIL WITH 35% PROPYLENE GLYCOL.
- PROVIDE 3-WAY VALVES AT ALL CURB.

EXHAUST FAN SCHEDULE							
UNIT NO.	EF-1	EF-2	EF-3	EF-4	EF-5	EF-6	EF-7
SERVES	OT BATH A103	HSR P132	TOILET A133	OXY A231	OXY B256	OXY B134	ELEV. AREA D-LL
MANUFACTURER	BROAN	BROAN	BROAN	BROAN	BROAN	BROAN	BROAN
TYPE	CEILING	CEILING	CEILING	CEILING	CEILING	CEILING	CEILING
MODEL	QTXE110	QTXE050	QTXE080	QTXE050	QTXE050	QTXE050	QTXE0110
CFM	95	40	75	50	50	50	100
S.P.	0.28"	0.28"	0.28"	0.28"	0.28"	0.28"	0.28"
HP	FRACTIONAL	FRACTIONAL	FRACTIONAL	FRACTIONAL	FRACTIONAL	FRACTIONAL	FRACTIONAL
VOLTS/PHASE	110/1	110/1	110/1	110/1	110/1	110/1	110/1
NOTES	1,2	1,2	1,2	1,2	1,2	1,2	1,2

- INSTALL IN ACCORDANCE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- PROVIDE WITH GRAVITY DAMPER AND BROODSCREEN.

RADIANT HEATING PANEL SCHEDULE							
UNIT NO.	RP-1	RP-2	RP-3	RP-4	RP-5	RP-6	RP-7
SERVES	SPA C189	SPA A181	SPA B171	FUTURE SPA B221	SPA D177	SPA D177	SPA D177
MANUFACTURER	QMARK	QMARK	QMARK	QMARK	AIRTEX	AIRTEX	AIRTEX
TYPE	ELECTRIC	ELECTRIC	ELECTRIC	ELECTRIC	HYDRONIC	HYDRONIC	HYDRONIC
CATALOG NO.	CP501	CP501	CP501	CP501			
SIZE	2' x 4'	2' x 4'	2' x 4'	2' x 4'	2' x 4'	2' x 4'	2' x 4'
VOLTS	120	120	120	120	180" - 160"	180" - 160"	180" - 160"
WATTS	500	500	500	500	1200 BTUH	1200 BTUH	1200 BTUH
AMPS	4.2	4.2	4.2	4.2			
NOTES	1,2	1,2	1,2	1,2	1,2	1,3,4	1,3,4

- INSTALL IN ACCORDANCE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- SELECT UNITS FOR LAY-IN CEILING.
- SELECT UNITS FOR LAY-IN CEILING. HEATING SYSTEM IS 35% PROPYLENE GLYCOL.
- PROVIDE 2-WAY CONTROL VALVES AT HEATING PANEL.

BUFFER TANK SCHEDULE		
UNIT NO.	BT-1	BT-2
SERVES	CHILLED WATER	HEATING WATER
TANK VOLUME	800 GALLONS	950 GALLONS
INLET SIZE	6"	6"
TANK DIAMETER	54"	54"
TANK HEIGHT	96"	96"
NOTES	1,2,3	1,2,3

- INSTALL IN ACCORDANCE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- TANKS SHALL BE ASME RATED.
- MAXIMUM HEIGHT SHALL BE 8'-0".

UNIT HEATER SCHEDULE			
UNIT NO.	UH-1	UH-2	UH-3
SERVES	PENTHOUSE	OD158	STERLING
MANUFACTURER	STERLING	STERLING	STERLING
MODEL NO.	HS-60	HS-20	HS-20
TYPE	HOT WATER	HOT WATER	HOT WATER
CABINET	HORIZONTAL	HORIZONTAL	HORIZONTAL
CFM	900	800	800
RPM	1000	1000	1000
HP	1/20	1/20	1/20
VOLTS/PHASE	115/1	115/1	115/1
MBH	18.7	20.0	20.0
EWT/LWT (°F)	120/110	180/160	180/160
GPM	3.5	2.0	2.0
NOTES	1,2,4	1,2,4	1,2,4

- INSTALL IN ACCORDANCE MANUFACTURER'S WRITTEN INSTRUCTIONS.
- ENTERING HOT WATER TEMP IS 120°F. LEAVING TEMP IS 110°F. SELECT COIL WITH 35% PROPYLENE GLYCOL.
- ENTERING HOT WATER TEMP IS 180°F. LEAVING TEMP IS 160°F. SELECT COIL WITH 35% PROPYLENE GLYCOL.
- ALL CONTROL VALVES SHALL BE 2-WAY.

ATTENUATORS																			
SYSTEM	A.H.U. #3 RETURN	A.H.U. #3 RETURN	A.H.U. #3 RETURN	R.T.U. #4 RETURN	R.T.U. #4 RETURN	R.T.U. #4 RETURN	R.T.U. #4 RETURN	A.H.U. #1 RETURN	A.H.U. #1 RETURN	R.T.U. #2 RETURN	R.T.U. #2 RETURN	R.T.U. #2 RETURN	R.T.U. #2 RETURN	SIDEWALL EXHAUST #1	SIDEWALL EXHAUST #2	SIDEWALL EXHAUST #3	SIDEWALL EXHAUST #4	SIDEWALL EXHAUST #5	
CFM	2630 CFM	2170 CFM	1720 CFM	2500 CFM	2170 CFM	1720 CFM	1720 CFM	5730 CFM	11,860 CFM	3900 CFM	3200 CFM	3200 CFM	3200 CFM	780 CFM	680 CFM	730 CFM	680 CFM	730 CFM	
OCTAVE BAND CENTER FREQUENCY (HZ)	SECOND	SECOND	SECOND	SECOND	SECOND	SECOND													
MINIMUM DYNAMIC INSERTION LOSS (DB)	9 dba	9 dba	9 dba	9 dba	9 dba	9 dba													
FACE VELOCITY FPM	1052 F.P.M.	1000 F.P.M.	883 F.P.M.	1000 F.P.M.	1000 F.P.M.	882 F.P.M.	1013 F.P.M.	1090 F.P.M.	1090 F.P.M.	1000 F.P.M.	1029 F.P.M.	1029 F.P.M.	1029 F.P.M.	780 F.P.M.	680 F.P.M.	730 F.P.M.	680 F.P.M.	730 F.P.M.	730 F.P.M.
APPROXIMATE SIZE	20" x 12"	20" x 12"	20" x 14"	34" x 12"	32" x 12"	32" x 12"	32" x 12"	32" x 12"	12" x 12"	12" x 12"	12" x 12"	12" x 12"	12" x 12"	12" x 12"					