



EDINBURG CISD

PURCHASING DEPARTMENT

411 N. 8th Ave., Edinburg, TX 78541

(956) 289-2311, (956) 38-7687

DOMINGA "MINGA" VELA, President
CARMEN GONZÁLEZ, Vice President
OSCAR SALINAS, Secretary
LUIS ALAMIA, Member
MIGUEL "MIKE" FARIAS, Member
LETICIA "LETTY" GARCIA, Member
XAVIER SALINAS, Member

Dr. Mario H. Salinas, Superintendent

ADDENDUM 1

CSP 23-25

GYMNASIUM ADDITIONS/IMPROVEMENTS FOR CANTERBURY & ESCANDON ELEMENTARY SCHOOLS

November 7, 2022

I. INSTRUCTIONS:

A. The following changes, omissions or alterations to the specification and drawings shall be made insofar as the specifications and drawings are inconsistent with following, this addendum shall govern.

B. Acknowledge receipt of this addendum by inserting its number and date of issue in the place provided for same in the proposal. This addendum forms a part of the Contract Documents.

C. It is imperative that this addendum be inserted INTO set of specifications.

II. SEE ADDENDUM BELOW:

PLEASE SEE ATTACHED:

Respectfully Submitted,

Amaro Tijerina
Director of Purchasing

(Signature of authorized officer)

Date

Company Name

Nondiscrimination Statement

It is the policy of Edinburg CISD not to discriminate on the basis of gender, age, handicap, religion, race, color, or national origin in its educational programs.
Es política del Distrito Escolar de Edinburg el no discriminar por razones con base en género, edad, religión, raza, color origen nacional, ni discapacidad dentro de sus programas educacionales.

ADDENDUM # 1

Date: November 7, 2022

PROJECT: Edinburg C. I. S. D.
Gymnasium Additions / Improvements for
Canterbury & De Escandon Elementary Schools
CSP #23-25

ARCHITECT: EGV Architects, Inc.
220 S. Bridge
Hidalgo, TX 78557
(956) 843-2987



This addendum applies to work designated herein, shall be understood to be and as such shall be part and is included in the contract.

ITEM #1 Substitution, Proposal Form

- Substitute herein attached revised Proposal Form labeled **ATTACHMENT #1** (3 pages).

ITEM #2 Substitution, Specification Section 01 20 00 Allowances

- Substitute herein attached revised specification section 01 20 00 Allowances, labeled **ATTACHMENT #2** (2 pages).

ITEM #3 Deletion, Division 0 Specs, Wage Rate, Edinburg CISD pages 40-44

- Davis Bacon Act is not applicable for these projects.

ITEM #4 Information, Safety and Security

- The Contractor shall provide temporary walks, fences, or other protective structures as are necessary or required for public safety for the entire project. Protection of the work and safety precautions are the total responsibility of the General Contractor. Contractor shall provide a submittal for temporary fencing for review by the Owner and Architect prior to starting any work. Adjacent buildings will be fully occupied, so safety is of utmost importance.

ITEM #5 Addition, Specifications, Section 10 21 13 Phenolic Toilet Partitions

- Add Scranton Products, Eclipse Partitions to the list of acceptable manufacturers for the Phenolic Toilet Partitions.

ITEM #6 Correction, Drawings, Sheet AE1.3, Detail 4

- Refer to attached Detail 4 labeled **ATTACHMENT #3** (1 page) for addition of the 3 point line at basketball court.

ITEM #7 MEP Addendum

- Refer to attached MEP Addendum labeled **ATTACHMENT #4** (17 sheets) for more information.

NOTIFICATION: It is the responsibility of the General Contractor to notify all of his subcontractors of the contents of all addenda.

PROPOSAL FORM

PROPOSAL NO. 23-25, Gymnasium Additions/Improvements for Canterbury & Escandon Elementary Schools

EDINBURG, TEXAS

MR. AMARO TIJERINA
DIRECTOR OF PURCHASING
EDINBURG CISD
411 N. 8TH AVENUE
EDINBURG, TEXAS 78541

The undersigned, as bidder(s), declares that the only person or parties interested in this proposal as principals are those named herein, that this proposal is made without collusion with any other person, firm or corporation; that he has carefully examined the Form of Contract, Notice to Bidders, General Conditions, Special Provisions, Measurement and Basis of Payment, specifications and the plans thereon referred to, and has carefully examined the locations, and conditions and classes of materials of the proposed work; and agrees that he will provide all the necessary labor, machinery, tools, and apparatus, and other items incidental to construction, and will do all the work and furnish all the materials called for in the contract and specifications in the manner prescribed therein and according to the requirements of the Engineer/Architect as therein set forth.

It is understood that the following quantities of work to be done at unit prices are approximate only and are intended principally to serve as guide in evaluating proposals.

It is further agreed that the quantities of work to be done at unit price and materials to be furnished, may be increased or diminished as may be considered necessary, in the opinion of the Architect, to complete the work fully as planned and contemplated, and that all quantities of the work, whether increased or decreased, are to be performed at the unit prices set forth below except as provided for in the specifications.

It is further agreed that lump sum prices may be increased to cover additional work ordered by the Architect, but not shown on the plans or required by the specifications, in accordance with the provisions of the General Conditions. Similarly, they may be decreased to cover deletion of work so ordered.

The 5% proposal security accompanying this proposal shall be returned to the bidder, unless in case of the acceptance of the proposal the bidder shall fail to execute a contract and file a performance bond and payment bond within the ten (10) days after its acceptance, in which case the proposal security shall become the property of the OWNER, and shall be considered as payment for damages due to delay and other inconveniences suffered by the Owner on account of such failure of the bidder, it is understood that the Owner reserves the right to reject any or all proposals.

**ORIGINAL PROPOSAL FORM MUST BE SUBMITTED ALONG WITH THE PROPOSAL AND
CONTRACT DOCUMENTS BOOKLET**

BIDDERS BOND in the amount of \$_____, (5%) of the greatest amount proposal in compliance with the INSTRUCTION TO BIDDERS.

The above Cashier's Check or Bidder's Bond is to become the property of the OWNER, in the event the construction contract (when offered by the Owner) and bonds are not executed within the time set forth.

Owner may award base proposals to ONE (1) or TWO (2) General Contractors as deemed in the best interest of the Owner. If Contractor only submits a proposal for one project, only fill out the amounts for the project you desire and mark "NO BID" on those not desired.

Proposers will include any allowances within the Grand Total of Proposal Improvements.

Refer to Specifications Section 01 20 00 for allowances to be included in each base proposal.

TOTAL ALLOWANCES: **\$48,000 for Canterbury Gym** (to be added to Base Proposal price)
 \$43,000 for De Escandon Gym (to be added to Base Proposal price)

Item No.	Item Description	Total
1.	Canterbury Elementary – Base Bid	
	Total Allowances	\$48,000
	Canterbury Elementary Gym TOTAL BASE PROPOSAL PRICE w/ ALLOWANCES	
	Time of Completion: _____ consecutive calendar days	
2.	Escandon Elementary – Base Bid	
	Total Allowances	\$25,000
	De Escandon Elementary Gym TOTAL BASE PROPOSAL PRICE w/ ALLOWANCES	
	Time of Completion: _____ consecutive calendar days	

GRAND TOTAL PROPOSAL IMPROVEMENTS: \$_____

The undersigned agrees, unless hereinafter stated otherwise to furnish all materials as shown and specified in the Plans and Specifications. Please attach supplemental spreadsheet detailing equipment, materials, demolition, labor, etc.

Bidder hereby agrees to commence work under this contract within 10 days after "NOTICE TO PROCEED" is issued, and to complete all the work in the Contract within _____ **Calendar Days**.

The undersigned bidder acknowledges the receipt of the following addenda:

ADDENDUM NO.	DATE	BY
ADDENDUM NO. 1		
ADDENDUM NO. 2		
ADDENDUM NO. 3		
ADDENDUM NO. 4		

Date: _____

By: _____
(Signature)

(Type or Print Name)

(Title)

(Company)

(Address)

(City, State, Zip)

(Phone Number)

(Fax Number)

(Seal – if Bidder is a Corporation)

DIVISION 1 GENERAL REQUIREMENTS
01 20 00 ALLOWANCES

PART 1 - GENERAL

1.1 SUMMARY

- A. This section specified administrative and procedural requirements governing handling and processing allowances.
- B. Selected materials and equipment, and in some cases, their installation are shown and specified in the Contract Documents by allowances. Allowances have been established in lieu of additional requirements and to defer selection of actual materials and equipment to a later date when additional information is available for evaluation. Additional requirements, if necessary, will be issued by change order.
- C. Types of allowances required include the following:
 - 1. Contingency allowances. Amount listed at the end of this section.
 - 2. Inspection and testing (all testing to be paid by Owner) any retesting to be paid by the General Contractor. Refer to Specifications Section 01 45 29 for more information.

1.2 SELECTION AND PURCHASE

- A. At the earliest feasible date after Contract award, advise the Architect of the date when the final selection and purchase of each product or system described by an allowance must be completed in order to avoid delay in performance of the work.

1.3 SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
- B. Submit invoices or delivery slips to indicate actual quantities of materials delivery to the site for use in fulfillment of each allowance.

1.4 CONTINGENCY ALLOWANCES

- A. Use the contingency allowance only as directed for the Owner's purpose, and only by Contingency Fund Change Orders which designate amounts to be charged to the allowance.
- B. The Contractor's related costs for products or equipment ordered by the Owner under the contingency allowance, including delivery, installation, taxes (if applicable), insurance, equipment rental, and similar costs are not part of the Contract Sum.
- C. Change orders authorizing use of funds from the contingency allowance will not include the Contractor's related costs and reasonable overhead and profit margins. Contractor shall include in base bid, Contractor's overhead profit, insurance, bond and other direct costs.
- D. At Project closeout, credit unused remaining in the contingency allowance to Owner by Change Order.

1.5 INSPECTION AND TESTING ALLOWANCES:

- A. Inspection and testing allowances include the cost of engaging the inspection or testing agencies and costs for reporting the results as well as costs for the actual inspections and tests.
- B. The allowance does not include incidental labor required to assist the testing agency, or costs for retesting upon failure of previous tests and inspections. The allowance also does not include costs of services not required by the Contract Documents.
- C. At Project closeout, credit unused amounts remaining in the inspection and testing allowance to the Owner by Change Order.

SCHEDULE OF ALLOWANCES FOR CANTERBURY GYM:

- ALLOWANCE NO. 1** **Contingency:** Include the contingency allowances for each school for use upon the Owner's instructions.
- ALLOWANCE NO. 2** **\$10,000 For Reinforcement for existing frames**
- ALLOWANCE NO. 3** **\$ 8,000 to be used as directed by Structural Engineer**
- ALLOWANCE NO. 4** **Additional Lab Testing: (By Owner)**

ALLOWANCES

- | | |
|--------------------------------------|--|
| 1. CONTINGENCY | \$30,000 for Canterbury Gym
(to be added to Base Proposal price) |
| 2. REINFORCEMENT OF EXISTING FRAMES: | \$10,000 |
| 3. STRUCTURAL ALLOWANCE: | \$ 8,000 |
| 4. LAB TESTING | By Owner |
| TOTAL: | \$48,000 |
- To be added to Canterbury Base Proposal price

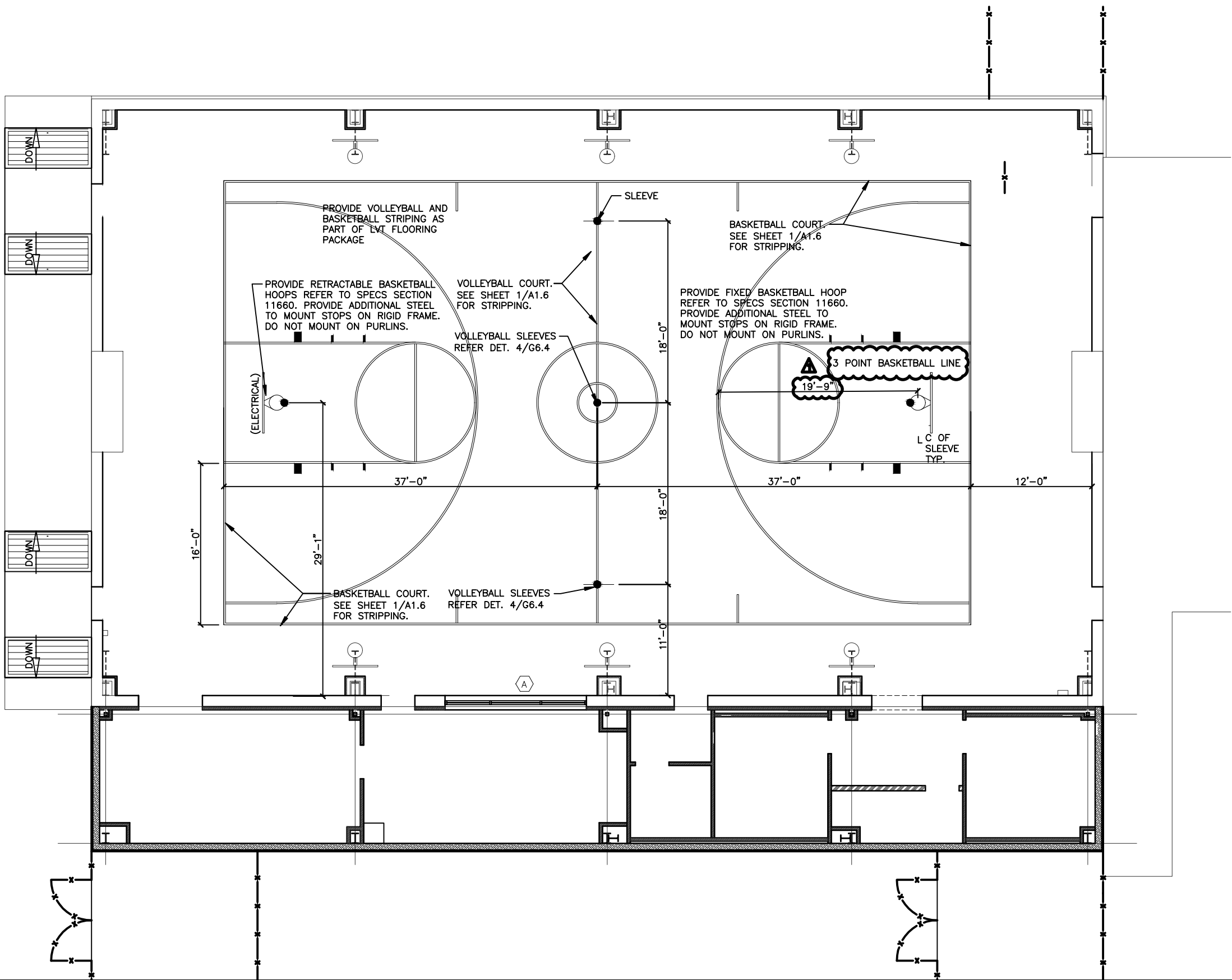
SCHEDULE OF ALLOWANCES FOR DE ESCANDON GYM:

- ALLOWANCE NO. 1** **Contingency:** Include the contingency allowances for use upon the Owner's instructions.
- ALLOWANCE NO. 2** **Additional Lab Testing: (By Owner)**

ALLOWANCES

- | | |
|----------------|--|
| 1. CONTINGENCY | \$25,000 for Escandon Gym
(to be added to Base Proposal price) |
| 2. LAB TESTING | By Owner |
| TOTAL: | \$25,000 |
- To be added to De Escandon Base Proposal price

END OF SECTION



4

BASKETBALL STRIPING

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



NOV 07 2022

GYMNASIUM ADDITIONS / IMPROVEMENTS
FOR CANTERBURY & ESCANDON ELEMENTARY SCHOOLS

EDINBURG TEXAS

ADDENDUM #1

SCALE:

DATE:

AE1.3

FILE: 000/0000/

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8627
HIDALGO, TX 78557



ARCHITECTS, INC.

TEL: (956) 843-2987
FAX: (956) 843-9726

Addendum No. 1

DATE
11/04/2022

TO
EGV Architects, Inc.



PROJECT 228023 | Gymnasium Additions / Improvements for Canterbury & Escandon Elementary Schools

The work described herein shall be added to the scope of work defined by the contract documents or it shall modify the scope of work defined by the contract documents as described. This work shall become a part of the contract documents by addendum.

MEP DRAWINGS

CANTERBURY

- | | |
|----------------|--|
| Item 01 | Sheet EL1.11 – ELECTRICAL LIGHTING AND SPECIAL SYSTEMS PLAN |
| | A. Updated exterior fixture types from WE to include type W |
| Item 02 | Sheet EP1.11 – ELECTRICAL POWER PLAN |
| | A. Added notes. |
| Item 03 | Sheet E5.01 – ELECTRICAL SCHEDULES |
| | A. Updated panel schedules to have additional loads. |
| Item 04 | Sheet E6.01 – ELECTRICAL DETAILS |
| | A. Added detail for IT cabinet mounting. |
| Item 05 | Sheet M0.01 – MECHANICAL SYMBOL LEGEND |
| | B. Adjusted the Mechanical General Notes. |
| Item 06 | Sheet MD1.11 – MECHANICAL DEMOLITION PLAN |
| | C. Adjusted the Mechanical Demo General Notes. |
| Item 07 | Sheet M1.11 – MECHANICAL PLAN |
| | D. Adjusted the Mechanical Keyed Notes. |
| Item 08 | Sheet M5.01 – MECHANICAL SCHEDULES AND DETAILS |

ADDENDUM #1, ATTACHMENT #4

- E. Added the French Drain Detail.

DE ESCANDON

Item 09 Sheet EL1.11 – ELECTRICAL LIGHTING AND SPECIAL SYSTEMS PLAN

- A. Updated general note I.
- B. Updated exterior fixture types from WE to include type W

Item 10 Sheet EP1.11 – ELECTRICAL POWER PLAN

- A. Removed RTU disconnects from north end of building.
- B. Added notes.

Item 11 Sheet E5.01 – ELECTRICAL SCHEDULES

- A. Updated panel schedules to have additional loads.
- B. Updated light fixture schedule to include type WE fixture.

Item 12 Sheet E6.01 – ELECTRICAL DETAILS

- A. Added detail for IT cabinet mounting.

Item 13 Sheet M0.01 – MECHANICAL SYMBOL LEGEND

- F. Adjusted the Mechanical General Notes.

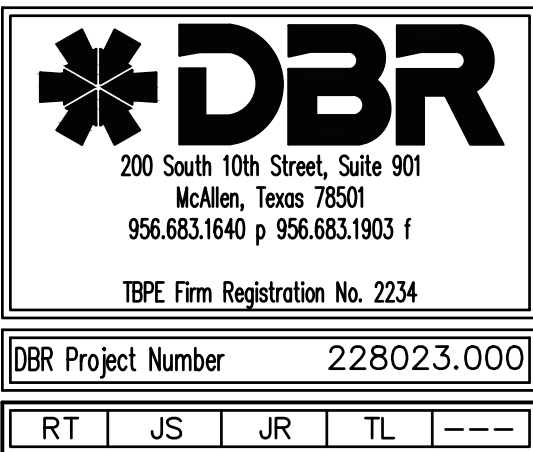
Item 14 Sheet M1.11 – MECHANICAL PLAN

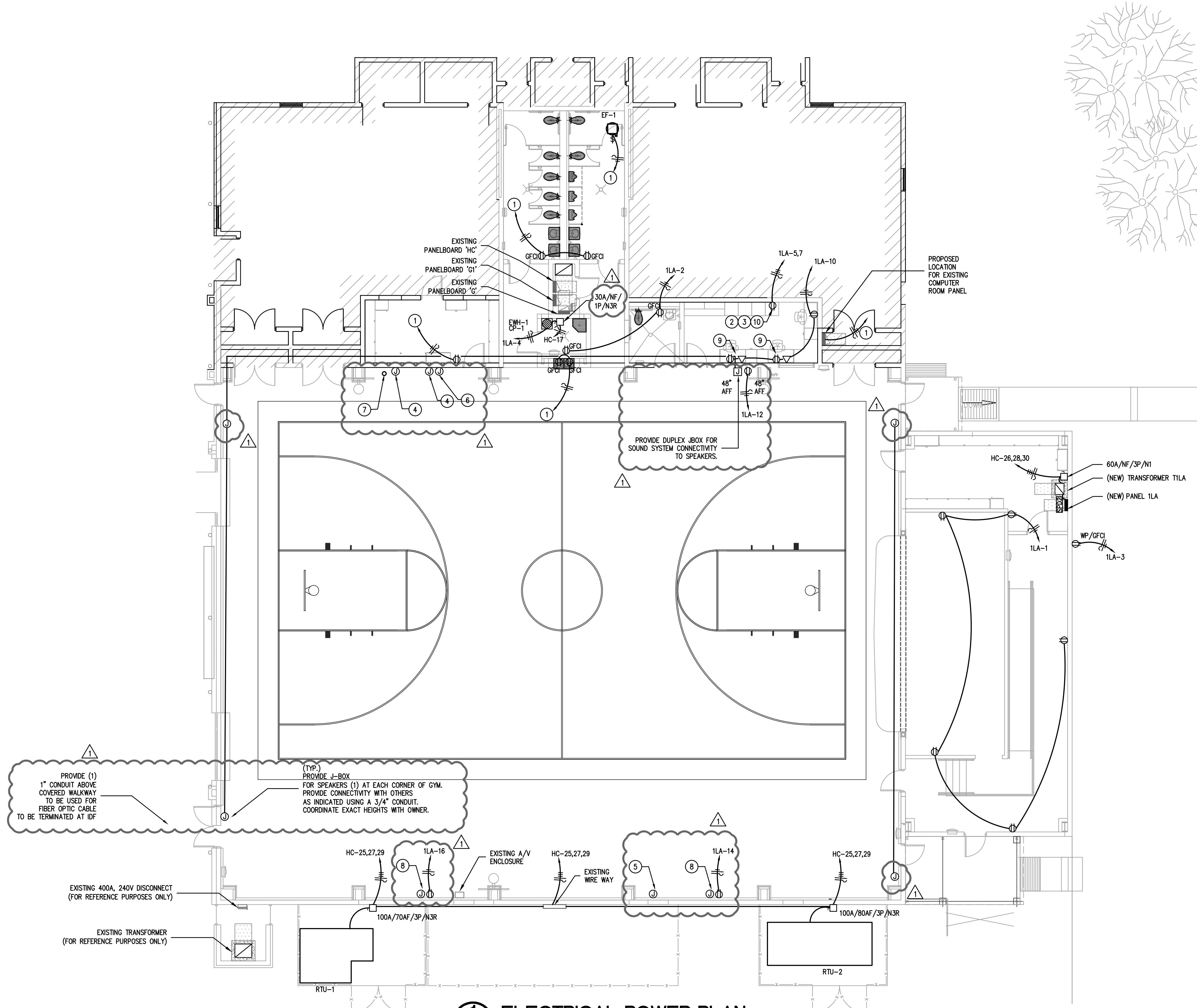
- G. Adjusted the Mechanical Keyed Notes.

Item 15 Sheet M5.01 – MECHANICAL SCHEDULES AND DETAILS

- H. Added the French Drain Detail.

END OF ADDENDUM





1 ELECTRICAL POWER PLAN
EP1.11
1/8" = 1'-0"

GENERAL POWER NOTES:

- CONTRACTOR SHALL VERIFY DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN. REVIEW ARCHITECTURAL CASEWORK AND MILLWORK ELEVATIONS PRIOR TO RECEPTACLE ROUGH-INS. DO NOT LOCATE RECEPTACLES BEHIND DRAWERS OR HIDDEN IN MILLWORK UNLESS SPECIFICALLY DIRECTED BY OWNER/ARCHITECT.
- ELECTRICAL CONTRACTOR SHALL GROUP HOMERUNS WITH THREE LINE (A,B, AND C PHASE), AND #10 NEUTRAL TO PROVIDE MULTI-WIRE BRANCH CIRCUITS. NO MORE THAN 2 MULTI-WIRE HOMERUNS PER CONDUIT.
- ELECTRICAL CONTRACTOR SHALL PROVIDE ALL RECEPTACLES, CONDUIT, BOXES, CONDUCTORS, ETC. NECESSARY FOR THE PROPER INSTALLATION FOR ANY CITY-REQUIRED OR OWNER-SPECIFIED BUILDING LOW VOLTAGE SYSTEMS, INCLUDING: TELEPHONE, DATA, CATV, FIRE ALARM, AND CAMERA OUTLETS. COORDINATE SCOPE OF WORK WITH ELECTRICAL CONTRACTOR RESPONSIBILITY AND WITH OWNER'S REPRESENTATIVE AND ALL OTHER RELEVANT PARTIES.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL EXHAUST FAN CONTROLS. PROVIDE A FAN SWITCH IF INDICATED BY MECHANICAL. ALL EXHAUST FANS SHALL BE PROVIDED WITH BUILT-IN DISCONNECT SWITCH.
- HVAC AND PLUMBING EQUIPMENT MAY DIFFER FROM LOCATIONS AS SHOWN ON ELECTRICAL DRAWINGS. COORDINATE EXACT LOCATIONS WITH MECHANICAL AND PLUMBING CONTRACTOR.
- ALL RECEPTACLES MOUNTED ABOVE COUNTERS AND WITHIN 6FEET OF SINKS OR LAVATORIES SHALL BE OF GFCI TYPE.
- CONTRACTOR SHALL INDICATE CIRCUIT SERVING EACH RECEPTACLE BY PROVIDING TYPE WRITTEN LABELING LOCATED ON THE INSIDE FACE OF EACH RECEPTACLE COVER PLATE.
- ELECTRICAL CONTRACTOR SHALL ROUTE ELECTRICAL CONDUIT AND WIRING TO ALL HVAC EQUIPMENT THROUGH ROOF CURBS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR TO FURNISH DISCONNECT SWITCH FOR ALL MECHANICAL EQUIPMENT. ELECTRICAL CONNECTIONS SHALL BE PROVIDED BY DIVISION 26.
- ALL RECEPTACLES LOCATED IN RESTROOMS, JANITOR CLOSETS, EQUIPMENT ROOMS, SERVING ELECTRIC DRINKING FOUNTAINS OR VENDING MACHINES, LOCATED WITHIN 6' OF A SINK, LOCATED ABOVE A WET COUNTERTOP OR IN A KITCHEN OR COFFEE BAR SHALL BE GFCI TYPE. EACH GFCI PROTECTED RECEPTACLE SHARING THE SAME CIRCUIT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON.
- MINIMUM CIRCUIT SIZE IS 2 #2 AND 1 #12 GROUND IN 3/4" CONDUIT. ALL CONDUCTORS SHALL BE 75 DEGREE (MINIMUM) COPPER THINN, COLOR CODED AS PER NEC AND LOCAL AMENDMENTS WITH SIZE, TEMPERATURE, AND VOLTAGE PERMANENTLY PRINTED ON THE JACKET. ALL JOINTS SHALL BE MADE UP USING SELF LOCKING, TWIST-ON, COLOR CODED, SQUARE WIRE SPRING GRAB, LONG SHIRT, WIRE CONNECTORS WITH SHEET WINGS.
- FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR.
- CONTRACTOR SHALL PROVIDE UPDATED PANEL DIRECTORIES FOR EXISTING PANELS.

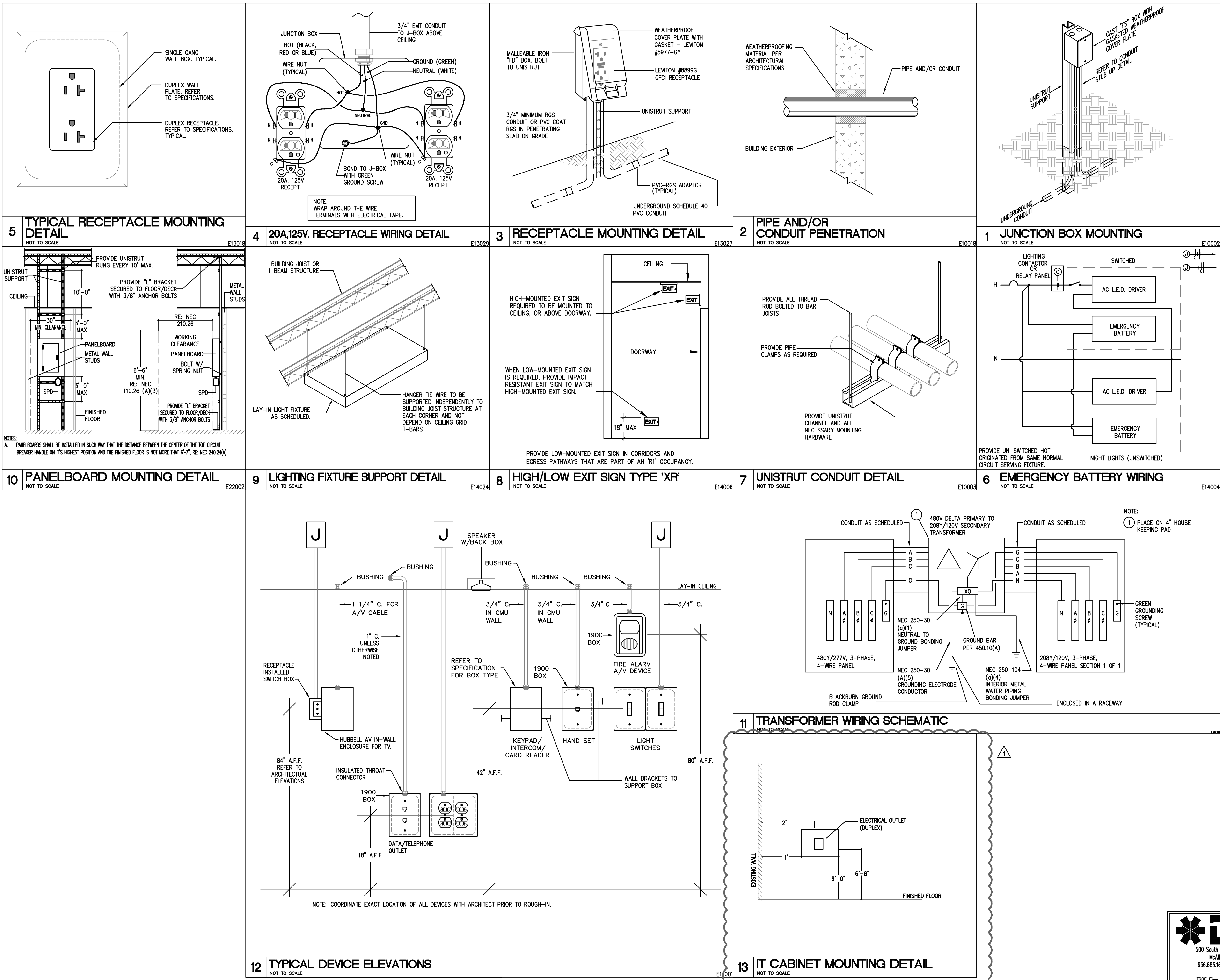
ELECTRICAL KEYED NOTES: ①

- RECRUIT TO EXISTING CIRCUIT.
- COORDINATE RECEPTACLE TYPE WITH EQUIPMENT SELECTED.
- PROVIDE 1" CONDUIT LOCATED ABOVE CEILING GRID FOR OPTIC CABLE. CONDUIT SHALL RUN THE LENGTH OF THE BUILDING AND SHALL BE SPLICED INTO 1" CONDUIT LOCATED OUTSIDE THE BUILDINGS COVERED WALKWAY.
- PROVIDE SINGLE GANG J-BOX 15"(FIFTEEN INCHES) ABOVE FINISHED FLOOR WITH 1" CONDUIT STUBBED OUT ABOVE CEILING GRID FOR DATA CABLEING BACK TO IDF.
- PROVIDE SINGLE GANG J-BOX 12"(TWELVE FEET) ABOVE FINISHED FLOOR WITH 1" CONDUIT BACK TO IDF FOR DATA CABLEING. CONDUIT SHALL FACE UP AND NOT INTO GYM SPACE.
- PROVIDE SINGLE GANG J-BOX 12"(TWELVE FEET) ABOVE FINISHED FLOOR WITH 1" STUBBED OUT ABOVE CEILING GRID FOR DATA CABLEING BACK TO IDF.
- PROVIDE 2" CONDUIT STUBBED ABOVE CEILING GRID FOR AUDIO VISUAL CABLEING FOR PROJECTOR. COORDINATE PROJECTOR LOCATION.
- PROVIDE SINGLE GANG J-BOX 15"(FIFTEEN INCHES) ABOVE FINISHED FLOOR (NEXT TO A DUPLEX RECEPTACLE) WITH 1" CONDUIT BACK TO IDF FOR DATA CABLEING. CONDUIT SHALL FACE UP AND NOT INTO GYM SPACE.
- PROVIDE SINGLE GANG J-BOX ABOVE FINISHED COUNTERTOP(NEXT TO A DUPLEX RECEPTACLE) WITH CONDUIT ABOVE CEILING GRID FOR DATA CABLEING BACK TO IDF.
- REFER TO CABINET MOUNTING DETAIL ON DETAILS SHEET.



BR Project Number		228023.000		
RT	JS	JR	TL	---

DATE:	DESIGNED:	DRAWN:	CHECKED:	SCALE:
EGV ARCHITECTS, INC.	220 S. BRIDGE STREET	PO BOX 8827	HIDALGO, TX 78567	
NO. REVISIONS	1	ADDENDUM #1		
DATE APPROVED	11/07/2022			
GYMNASIUM ADDITIONS / IMPROVEMENTS FOR CANTERBURY & ESCANDON ELEMENTARY SCHOOLS EDINBURG TEXAS				
JOB NO. FILE NO. DWG/ EP1.11 SHEET OF				

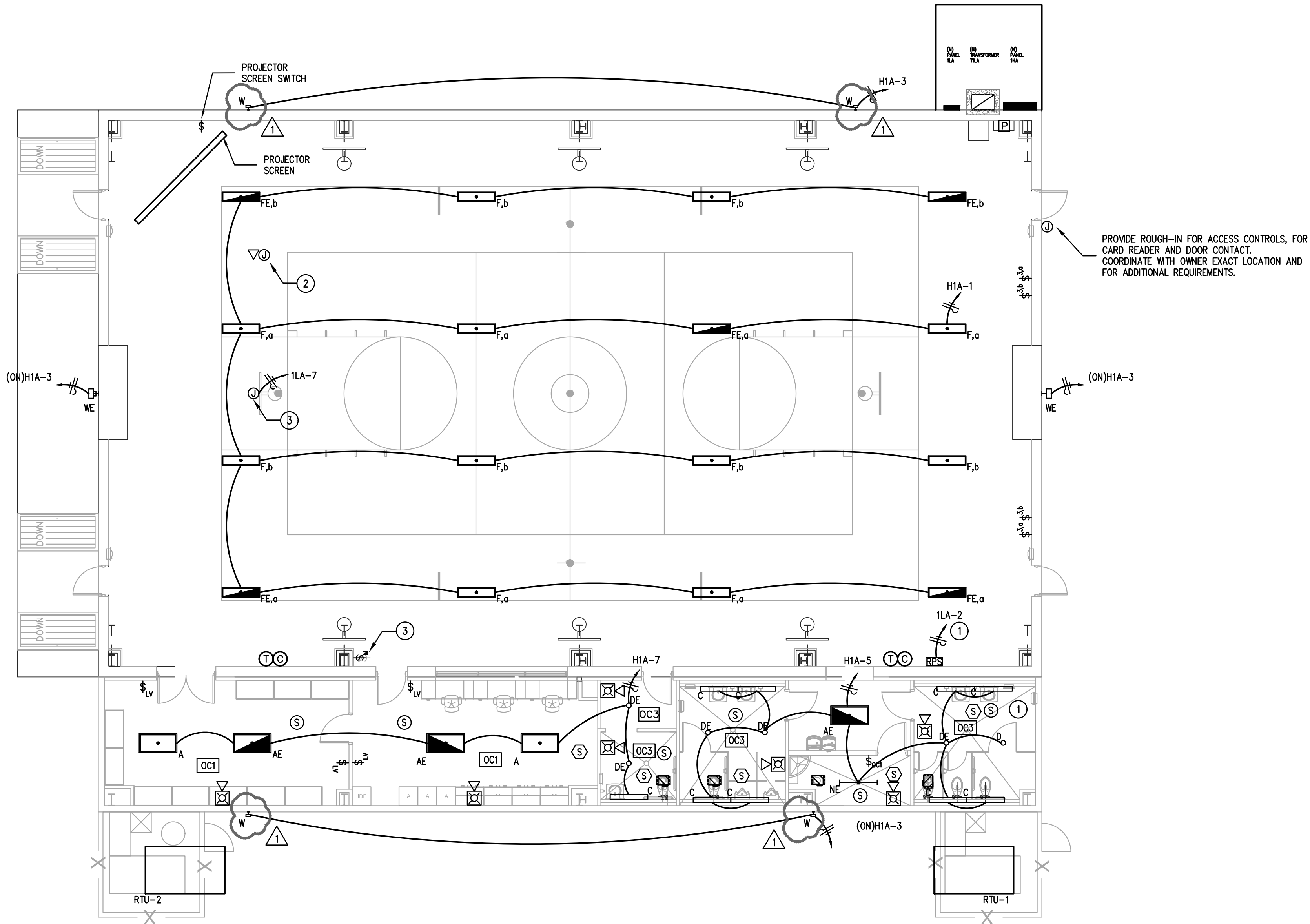


GENERAL LIGHTING NOTES:

- A. REFER TO ELECTRICAL SYMBOL LEGEND FOR GENERAL NOTES.
B. VERIFY SWITCH COLOR WITH ARCHITECT.
C. ALL CEILING MOUNTED DEVICES LOCATED IN LAY-IN CEILING SHALL BE CENTERED IN THE CEILING TILE.
D. MULTIPLE SWITCHES SHOWN TOGETHER SHALL BE GANGED TOGETHER UNDER A COMMON COVER PLATE.
E. CONTRACTOR SHALL INDICATE LIGHTING CIRCUIT CONTROLLED BY EACH SWITCH BY PROVIDING TYPE WRITTEN LABELING LOCATED ON INSIDE FACE OF EACH SWITCH COVER PLATE.
F. PROVIDE EMERGENCY LIGHT FIXTURES AND EXIT SIGNS WITH UNSWITCHED HOT LEG AS DEFINED IN NEC 700.12.
G. FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR.
H. GYM FIXTURES SHALL BE RIGIDLY SUPPORTED TO STRUCTURE.
I. SPECIAL SYSTEMS SHALL BE PROVIDED TO MATCH EXISTING:
1A. INTERCOM - VALCOM
1B. FIRE ALARM - NOTIFIED FIRENET PLUS
1C. SECURITY - ADAMCO

ELECTRICAL KEYED NOTES:

1. (TYPICAL) NEW FA/INTERCOM SYSTEM SHALL BE INTERCONNECTED WITH THE EXISTING FA SYSTEM IN THE MAIN BUILDING.
2. PROVIDE POWER AND DATA FOR CEILING MOUNTED PROJECTOR. COORDINATE EXACT LOCATION ON SITE.
3. PROVIDE POWER FOR NEW MOTORIZED BACKSTOP. CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENTS WITH SELECTED EQUIPMENT. COORDINATE EXACT SWITCH LOCATION WITH OWNER.



1 ELECTRICAL LIGHTING AND SPECIAL SYSTEMS PLAN
EL1.11 1/8" = 1'-0"

DBR
200 South 10th Street, Suite 901
McAllen, Texas 78501
956.683.1640 p 956.683.1903 f
TBPE Firm Registration No. 2234
DBR Project Number 228023.0001
RT JS JR TL ---

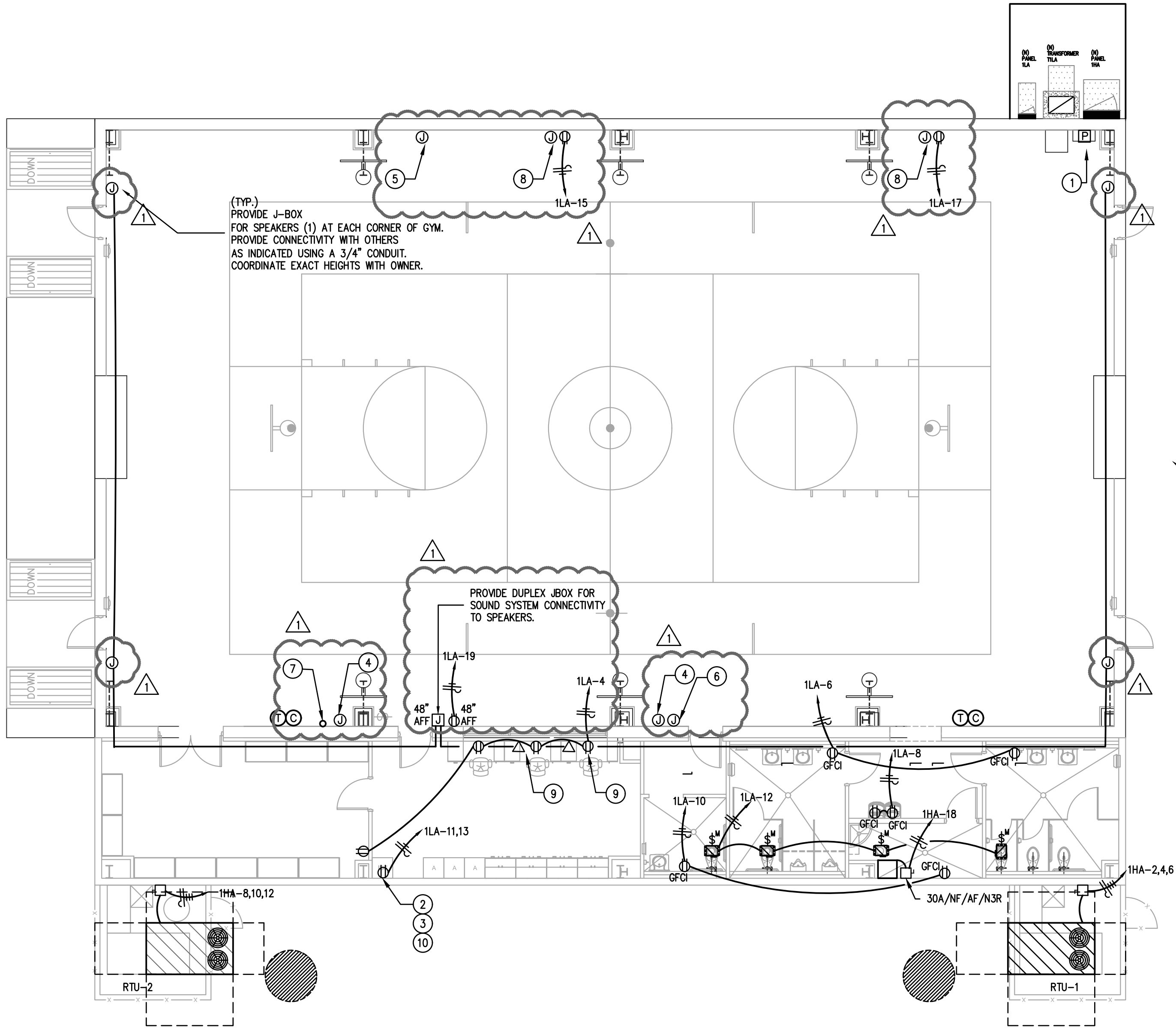
DATE: 11/07/2022	NO. 1	REVISIONS: Addendum #1	DATE APPROVED: 11/07/2022
DESIGNED: EGV ARCHITECTS, INC.	DRAWN: 220 S. BRIDGE STREET	CHECKED: PO BOX 8827	FILE NO. DWG/
SCALE: HIALGO, TX 78557	TEL: (956) 845-2987	FAX: (956) 843-9726	
EGV ARCHITECTS, INC. 220 S. BRIDGE STREET PO BOX 8827 HIALGO, TX 78557 TEL: (956) 845-2987 FAX: (956) 843-9726			
ARCHITECTS, INC.			
STATE OF TEXAS ROBERTO H. TIJERINA 121946 PROFESSIONAL ENGINEER 11/07/2022			
GYMNASIUM ADDITIONS / IMPROVEMENTS FOR CANTERBURY & ESCANDON ELEMENTARY SCHOOLS EDINBURG TEXAS			
JOB NO. FILE NO. DWG/			
EL1.11 SHEET OF			

GENERAL POWER NOTES:

- A. CONTRACTOR SHALL VERIFY DEVICE LOCATIONS WITH ARCHITECT PRIOR TO ROUGH-IN. REVIEW ARCHITECTURAL CASEWORK AND MILLWORK ELEVATIONS PRIOR TO RECEPTACLE ROUGH-INS. DO NOT LOCATE RECEPTACLES BEHIND DRAWERS OR HIDDEN IN MILLWORK UNLESS SPECIFICALLY DIRECTED BY OWNER/ARCHITECT.
- B. ELECTRICAL CONTRACTOR SHALL GROUP HOMERUNS WITH THREE LINE (A,B, AND C PHASE), AND #10 NEUTRAL TO PROVIDE MULTI-WIRE BRANCH CIRCUITS. NO MORE THAN 2 MULTI-WIRE HOMERUNS PER CONDUIT.
- C. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL RECEPTACLES, CONDUIT, BOXES, CONDUCTORS, ETC. NECESSARY FOR THE PROPER INSTALLATION FOR ANY CITY-REQUIRED OR OWNER-SPECIFIED BUILDING LOW VOLTAGE SYSTEMS, INCLUDING: TELEPHONE, DATA, CATV, FIRE ALARM, AND CAMERA OUTLETS. COORDINATE SCOPE OF WORK WITH ELECTRICAL CONTRACTOR RESPONSIBILITY AND WITH OWNER'S REPRESENTATIVE AND ALL OTHER RELEVANT PARTIES.
- D. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR FOR ALL EXHAUST FAN CONTROLS. PROVIDE A FAN SWITCH IF INDICATED BY MECHANICAL. ALL EXHAUST FANS SHALL BE PROVIDED WITH BUILT-IN DISCONNECT SWITCH.
- E. HVAC AND PLUMBING EQUIPMENT MAY DIFFER FROM LOCATIONS AS SHOWN ON ELECTRICAL DRAWINGS. COORDINATE EXACT LOCATIONS WITH MECHANICAL AND PLUMBING CONTRACTORS.
- F. ALL RECEPTACLES MOUNTED ABOVE COUNTERS AND WITHIN 6FEET OF SINKS OR LAVATOIRES SHALL BE OF GFCI TYPE.
- G. CONTRACTOR SHALL INDICATE CIRCUIT SERVING EACH RECEPTACLE BY PROVIDING TYPE WRITTEN LABELING LOCATED ON THE INSIDE FACE OF EACH RECEPTACLE COVER PLATE.
- H. ELECTRICAL CONTRACTOR SHALL ROUTE ELECTRICAL CONDUIT AND WIRING TO ALL ROOF HVAC EQUIPMENT THROUGH ROOF CURBS. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.
- I. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH MECHANICAL CONTRACTOR TO FURNISH DISCONNECT SWITCH FOR ALL MECHANICAL EQUIPMENT. ELECTRICAL CONNECTIONS SHALL BE PROVIDED BY DIVISION 25.
- J. ALL RECEPTACLES LOCATED IN RESTROOMS, JANITOR CLOSETS, MECHANICAL ROOMS, ELEVATOR PITTS OR SHAFTS, ELEVATOR EQUIPMENT ROOMS, SERVING ELECTRIC DRINKING FOUNTAINS OR VENDING MACHINES, LOCATED WITHIN 6' OF A SINK, LOCATED ABOVE A NET COUNTERTOP OR IN A KITCHEN OR COFFEE BAR SHALL BE GFCI TYPE. EACH GFCI PROTECTED RECEPTACLE SHARING THE SAME CIRCUIT SHALL HAVE ITS OWN RE-SET AND TEST BUTTON.
- K. MINIMUM CIRCUIT SIZE IS 2 #2 AND 1 #12 GROUND IN 3/4" CONDUIT. ALL CONDUCTORS SHALL BE 75 DEGREE (MINIMUM) COPPER TINNED, COLOR CODED AS PER NEC AND LOCAL AMENDMENTS WITH SIZE, TEMPERATURE, AND VOLTAGE PERMANENTLY PRINTED ON THE JACKET. ALL JOINTS SHALL BE MADE UP USING SELF LOCKING, TIGHT-ON, COLOR CODED, SQUARE WIRE SPRING GRAB, LONG SKIRT, WIRE CONNECTORS WITH SHEET WINGS.
- L. FIRESTOP ALL CONDUIT PENETRATIONS IN RATED WALLS. SEE ARCHITECTURAL DRAWINGS FOR WALL RATINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR DAMAGE TO SHEET ROCK AND REPAIR.

ELECTRICAL KEYED NOTES:

1. NEW PULL BOX TO EXTEND EXISTING FEEDER AND BRANCH CONDUITORS TO NEW EXTERIOR PANELS.
2. COORDINATE RECEPTACLE TYPE WITH EQUIPMENT SELECTED.
3. PROVIDE 1" CONDUIT LOCATED ABOVE CEILING GRID FOR OPTIC CABLE. CONDUIT SHALL RUN THE LENGTH OF THE BUILDING AND SHALL BE SPLICED INTO 1" CONDUIT LOCATED OUTSIDE THE BUILDING COVERED WALKWAY.
4. PROVIDE SINGLE GANG JBOX 15"(FIFTEEN INCHES) ABOVE FINISHED FLOOR WITH 1" CONDUIT STUBBED OUT ABOVE CEILING GRID FOR DATA CABLING BACK TO IDF.
5. PROVIDE SINGLE GANG JBOX 12"(TWELVE FEET) ABOVE FINISHED FLOOR WITH 1" CONDUIT BACK TO IDF FOR DATA CABLING. CONDUIT SHALL FACE UP AND NOT INTO GYM SPACE.
6. PROVIDE SINGLE GANG JBOX 12"(TWELVE FEET) ABOVE FINISHED FLOOR WITH 1" STUBBED OUT ABOVE CEILING GRID FOR DATA CABLING BACK TO IDF.
7. PROVIDE 2" CONDUIT STUBBED ABOVE CEILING GRID FOR AUDIO VISUAL CABLING FOR PROJECTOR. COORDINATE PROJECTOR LOCATION.
8. PROVIDE SINGLE GANG JBOX 15"(FIFTEEN INCHES) ABOVE FINISHED FLOOR (NEXT TO A DUPLEX RECEPTACLE) WITH 1" CONDUIT BACK TO IDF FOR DATA CABLING. CONDUIT SHALL FACE UP AND NOT INTO GYM SPACE.
9. PROVIDE SINGLE GANG JBOX ABOVE FINISHED COUNTERTOP(NEXT TO A DUPLEX RECEPTACLE) WITH CONDUIT ABOVE CEILING GRID FOR DATA CABLING BACK TO IDF.
10. REFER TO CABINET MOUNTING DETAIL ON DETAILS SHEET.



1 ELECTRICAL POWER PLAN
EP1.11
1/8" = 1'-0"

DBR
200 South 10th Street, Suite 901
McAllen, Texas 78501
956.663.1640 p 956.663.1903 f
TBP Firm Registration No. 2234
DBR Project Number 228023.000

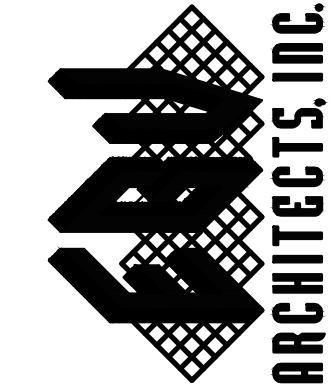
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GYMNASIUM ADDITIONS / IMPROVEMENTS
FOR CANTERBURY & ESCANDON ELEMENTARY SCHOOLS
EDINBURG TEXAS

JOB NO.
FILE NO. DWG/

EP1.11 SHEET
OF

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8827
HIDALGO, TX 78567
TEL: (956) 845-2987
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LIGHTING CONTROLS DEVICE SCHEDULE		
TYPE	DESCRIPTION	COMMENTS
$\frac{1}{2}$ $\frac{1}{4}$ $\frac{1}{8}$ $\frac{1}{16}$	LINE VOLTAGE SWITCH.	'3' INDICATES THREE WAY SWITCHING. '4' INDICATES FOUR WAY SWITCHING. 'K' INDICATES SWITCH SHALL BE KEYED SWITCH.
$\frac{1}{8}$	LINE VOLTAGE MOMENTARY CONTACT SWITCH.	
$\frac{1}{8}$	LINE VOLTAGE DIMMER SWITCH	DIMMER FOR USE IN DWELLING UNIT. COORDINATE DIMMING TYPE WITH FINAL FIXTURE AND LAMP SELECTION TO ENSURE COMPATIBILITY.
$\frac{1}{8}$	LINE VOLTAGE DIMMER WITH 3-WAY SWITCH.	3-WAY DIMMER FOR USE IN DWELLING UNIT. COORDINATE DIMMING TYPE WITH FINAL FIXTURE AND LAMP SELECTION TO ENSURE COMPATIBILITY.
$\frac{1}{4}$	MULTI-SPEED FAN CONTROLLER WITH LINE VOLTAGE SWITCH.	
$\frac{1}{4}$	LINE VOLTAGE TIMER SWITCH WITH DIGITAL TIMER.	RATED FOR 120/277VAC. PROVIDE WITH AUDIBLE & VISUAL ALERTS. USER PROGRAMMABLE FOR 5MIN-12HR TIME-OUT SETTINGS.
$\frac{1}{8}$	LINE VOLTAGE WALL MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR	SENSOR SHALL BE SET TO VACANCY MODE
$\frac{1}{8}$	LINE VOLTAGE WALL MOUNT DUAL TECHNOLOGY OCCUPANCY SENSOR WITH DUAL RELAYS.	SENSOR SHALL BE SET TO VACANCY MODE. ONE RELAY SHALL SERVE 120 VOLT LIGHTING IN AREA INDICATED, AND ONE RELAY SHALL SERVE 277 VOLT LIGHTING.
$\frac{1}{8}$	LOW VOLTAGE OC SENSOR SWITCH WITH 0-10V DIMMER	SENSOR SHALL BE SET TO VACANCY MODE
$\frac{1}{8}$ $\frac{1}{16}$	LOW VOLTAGE MANUAL CONTROL.	CONNECT TO POWER PACK OR ROOM CONTROLLER IF OCCUPANCY SENSORS ARE INDICATED ON PLAN. PROVIDE MULTI-BUTTON SWITCH AS REQUIRED PER SWITCH LEGS SHOWN ON PLANS. 'K' INDICATES SWITCH SHALL BE KEYED SWITCH.
$\frac{1}{8}$ $\frac{1}{16}$	LOW VOLTAGE MANUAL CONTROL.	CONNECT TO RELAY PANEL OR TIME CLOCK FOR TIME OF DAY OVERRIDE AS NOTED ON PLANS. PROVIDE MULTI-BUTTON SWITCH AS NOTED ON PLANS. 'K' INDICATES SWITCH SHALL BE KEYED SWITCH.
$\frac{1}{4}$	LOW VOLTAGE SWITCH WITH 0-10V DIMMER	PROVIDE MULTI-BUTTON SWITCH AS REQUIRED PER SWITCH LEGS SHOWN ON PLANS. PROVIDE POWER PACKS OR ROOM CONTROLLERS AS REQUIRED.
$\frac{1}{8}$ $\frac{1}{16}$	CEILING MOUNTED DUAL TECH OCCUPANCY SENSOR.	SET TO VACANCY MODE. PROVIDE POWER PACKS AS NEEDED.
$\frac{1}{8}$ $\frac{1}{16}$	CEILING MOUNTED DUAL TECH OCCUPANCY SENSOR.	SET TO OCCUPANCY MODE. PROVIDE POWER PACKS AS REQUIRED.
$\frac{1}{8}$ $\frac{1}{16}$	CEILING MOUNTED ULTRASONIC OR MICROPHONIC OCCUPANCY SENSOR.	SET TO OCCUPANCY MODE. PROVIDE POWER PACKS AS REQUIRED.
$\frac{1}{8}$ $\frac{1}{16}$	CORNER MOUNTED DUAL TECH OCCUPANCY SENSOR.	SET TO VACANCY MODE. PROVIDE POWER PACKS AS REQUIRED.
$\frac{1}{8}$ $\frac{1}{16}$	WET LOCATION PIR OCCUPANCY SENSOR.	CONNECT GARAGE OCCUPANCY SENSORS TO RELAY PANEL SERVING AREA. PROVIDE POWER PACKS FOR CONTROL WHERE NOT LOCATED IN THE GARAGE.
$\frac{1}{8}$ $\frac{1}{16}$	CEILING MOUNTED DUAL TECH OCCUPANCY SENSOR FOR HIGH BAY APPLICATION.	SET TO VACANCY MODE. PROVIDE POWER PACKS AS REQUIRED.
$\frac{1}{8}$ $\frac{1}{16}$	DIGITAL PHOTOSENSOR	CONNECT TO ROOM CONTROLLER OR RELAY PANEL AS NOTED ON PLANS.
$\frac{1}{8}$ $\frac{1}{16}$	DAYLIGHT HARVESTING SENSOR	CONNECT TO ROOM CONTROLLER OR INDIVIDUAL LIGHT FIXTURE FOR DAYLIGHT HARVESTING DIMMING CONTROL.

NOTES:
1. LUTRON IS THE BASIS OF DESIGN.
2. THE LIGHTING CONTROLS SCHEDULED ARE THE BASIS OF DESIGN. IT IS NOT INTENDED TO LIMIT COMPETITION FROM EQUAL MANUFACTURERS. ALL BIDDERS SHALL SUBMIT THEIR PROPOSED LIGHTING CONTROLS IN SUBMITTAL FORM A MINIMUM OF 10 BUSINESS DAYS PRIOR TO BID DATE FOR REVIEW. APPROVED LIGHTING CONTROL SYSTEMS WILL BE ISSUED IN AN ADDENDUM.

Panelboard 1HA												65,000 AIC Rating Existing X New		
277/480 Volt, 3-Phase, 4-Wire 1 Section 3 -Nema Rating				X	MCB	150	AMP	MCB	X	Single Double Feed - Thru	Mounting X Surface Flush			
				MLO	225	AMP	BUS	(Copper)						
Notes	Load (VA)	Description	Type	Wire	CB	CKT #	PH	CKT #	CB	Wire	Type	Description	Load (VA)	Notes
	2144	GYM COURT LIGHTING	L	12	20/1	1	A	2					17728	
	144	EXTERIOR LIGHTING	L	12	20/1	3	B	4		60/3	6	C	RTU-1 PWR	17728
	195	RR, STORAGE RM LIGHTING	L	12	20/1	5	C	6					17728	
	200	TORAGE, OFFICE, RR LIGHTIN	L	12	20/1	7	A	8					17728	
		SPARE		12	20/1	9	B	10		60/3	6	C	RTU-2 PWR	17728
	2144	GYM COURT LIGHTING	L	12	20/1	11	C	12					17728	
	192	EXTERIOR LIGHTING	L	12	20/1	13	A	14		20/1	12		SPARE	
		SPARE		12	20/1	15	B	16		20/1	12		SPARE	
		SPARE		12	20/1	17	C	18		15/1	12	WH	EWH-1 PWR	3000
						19	A	20						
						21	B	22						
						23	C	24						
						25	A	26						
						27	B	28						
						29	C	30						
						31	A	32						
						33	B	34						
						35	C	36						
	5010					37	A	38						
	2560					39	B	40						
	2854					41	C	42						
	15,443	Subtotal										Subtotal	109,368	
N.E.C.	Load Type	Conn.	Fct.	Diversity	N.E.C.			Conn.	Fct.	Diversity				
220.44	(R) Recept.	0		0	210.20(a)	(L) Lighting		5,019	125%	6,274				
220.56	(K) Kitchen	0	100%	0		(EL) Ext. Ltg.		0	125%	0				
220.60	(C) Cooling	35,456	100%	35,456	620.14	(E) Elevators		0	100%	0				
220.80	(H) Heating	0	0%	0		(WH) Water Ht.		3,000	100%	3,000				
220.50	(F) Fans	0	100%	0	220.50	(MT) Lrg. Mot.		0	125%	0				
220.50	(M) Misc.	0	100%	0		(SP) Sub Panel		5,010	100%	5,010				
Total Connected Load =				48,485 VA =	58.3	Location of Panel:				EXTERIOR OF BUILDING				
Total Load (Diversified)=				49,740 VA =	59.9	AMPS								

Panelboard 1LA												10,000 AIC Rating Existing X New		
120/208 Volt, 3-Phase, 4-Wire 1 Section 3 -Nema Rating				X	MCB	0	AMP	MCB	X	Single Double Feed - Thru	Mounting X Surface Flush			
				MLO	100	AMP	BUS (Copper)							
Notes	Load (VA)	Description	Type	Wire	CB	CKT #	PH	CKT #	CB	Wire	Type	Description	Load (VA)	Notes
1	1200	EXIST. RECEPTS.	R	12	20/1	1	A	2	20/1	12	R	GYM F.A. RPS PANEL	50	
1	1200	EXIST. RECEPTS.	R	12	20/1	3	B	4	20/1	12	R	103 OFFICE RECEPTS.	720	
1	1200	EXIST. RECEPTS.	R	12	20/1	5	C	6	20/1	12	R	109,110 BOYS, GRILS RR RECEPTS.	360	
	1380	MOTORIZED BASKET BACKSTOP	M	12	20/1	7	A	8	20/1	12	R	106 VEST. EDF	1200	
	100	CP-1 PWR	M	12	20/1	9	B	10	20/1	12	R	105,108 RR, JAN, RECEPTS.	360	
	1000	IDF RACK	R	12	20/2	11	C	12	20/1	12		EF-1,2,3,4 PWR	114	
	1000					13	A	14	20/1	12		SPARE		
	180	GYM RECEPTACLE	R	12	20/1	15	B	16	20/1	12		SPARE		
	180	GYM RECEPTACLE	R	12	20/1	17	C	18	20/1	12		SPARE		
	180	GYM RECEPTACLE	R	12	20/1	19	A	20						
						21	B	22						
						23	C	24						
						25	A	26						0
						27	B	28						0
						29	C	30	30/3	10	SP	SPD-2		0
	7,620	Subtotal											2,604	
												Subtotal	2,604	
N.E.C.	Load Type	Conn.	Fct.	Diversity	N.E.C.	Subtotal								
						Conn.	Fct.	Diversity						
220.44	(R) Recept.	7,830		7,830	210.20(a)	0	125%	0						
220.56	(K) Kitchen	0	100%	0		0	125%	0						
220.60	(C) Cooling	0	0%	0	620.14	0	100%	0						
220.60	(H) Heating	0	0%	0		0	100%	0						
220.60	(F) Fans	0	100%	0	220.50	0	125%	0						
220.60	(M) Misc.	1,480	100%	1,480		0	100%	0						
Total Connected Load =					9,310 VA =	25.9	AMPS	Location of Panel: EXTERIOR OF BUILDING						
Total Load (Diversified)=					9,310 VA =	25.9	AMPS							

NOTES:
1. PROVIDE POWER TO EXISTING LOADS

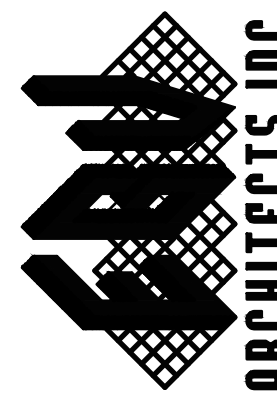
												v0.2 - 61022019												
												AUTO ON ¹ MANUAL ON (VAC-ANCY) AUTO OFF (DIMIN MAX) PARTIAL OFF AT NORMAL HOURS ² AUTO OFF AFTER HOURS (DIMIN MAX) TIME ON TIME OFF ASTRONOMIC or PHOTOCELL ON/OFF AUTO STEP CONTROL WITH OFF ⁴ AUTO CONTINUOUS DIM WITH OFF ^{4, 5} MANUAL BALEVEL REDUCTION CONTROL ⁶ MANUAL CONTINUOUS DIM CONTROL MANUAL ON/OFF SWITCH DISPLAY, ACCENT ⁷ , TASK CONTROL ⁷												
ROOM TYPE		OCCUPANCY SENSOR			TIME SWITCH		DAYLIGHT CTL		LT REDUCT		MANUAL CONTROL		SEQUENCE OF OPERATION											
Spaces (≥ 300 sq ft)		50%		20 min					D	●	D	●	D	Auto On 50%. Occupancy sensor Auto Off. Manual control and ≥50% light reduction with two on/off controls. Where ≥150W in daylight area, use continuous dimming daylighting control and dimmer switch.										
Enclosed Offices		50%		20 min					D	●	D	●	D	Auto On 50%. Occupancy sensor Auto Off. Manual control and ≥50% light reduction with two on/off controls. Where ≥150W in daylight area, use continuous dimming daylighting control and dimmer switch.										
Open Plan Office Areas ≤600SqFt zones		50%		20 min					D	●	D	●	D	●	Auto On 50%. Occupancy sensor Auto Off. Manual control and ≥50% light reduction with two on/off controls. Where ≥150W in daylight area, use continuous dimming daylighting control and dimmer switch.									
Class/Lecture/Training Room		50%		20 min					D	●	D	●	D	●	Auto On 50%. Occupancy sensor Auto Off. Manual control and ≥50% light reduction with two on/off controls. Where ≥150W in daylight area, use continuous dimming daylighting control and dimmer switch.									
Conference/Meeting Room		50%		20 min					D	●	D	●	D	●	Auto On 50%. Occupancy sensor Auto Off. Manual control and ≥50% light reduction with two on/off controls. Where ≥150W in daylight area, use continuous dimming daylighting control and dimmer switch.									
Janitor Closet			●	20 min								●			Manual On. Occupancy sensor Auto Off. Manual control device.									
Restroom		100%		20 min								●			Auto On 100%. Occupancy sensor Auto Off. Manual control.									
Corridor		100%		20 min					D		D	●	D	●	Auto On 100%. Occupancy sensor Auto Off. Manual control device; Where ≥150W in daylight area, use continuous dimming daylighting control and dimmer switch.									
Storage Room		50%		20 min					D	●	D	●	D		Auto On 50%. Occupancy sensor Auto Off. Manual control and ≥50% light reduction with two on/off controls; Where ≥150W in daylight area, use continuous dimming daylighting control and dimmer switch.									
Cafeteria / Gym			●				11 PM		D	●	D	●	D		Manual On. Time Off with closing hours. After hours 2 hour override from manual control device; Where ≥150W in daylight area, continuous dimming daylighting control with dimmer switch.									
Lab		50%		20 min					D	●	D	●	D		Auto On 50%. Occupancy sensor Auto Off. Manual control and ≥50% light reduction with two on/off switches; Where ≥150W in daylight area, use continuous dimming daylighting control and dimmer switch.									
Exterior / Parking Lots / Site Lighting (Setback)						6AM ³	12:00 AM ³	●							Dusk Auto On with auto time switch or photocell. Reduce at least 30% from midnight or up to one hour after business close. Auto On to full at 6:00AM or up to one hour before business open. Dawn Auto Off.									
● = Designation for code compliant default control design for spaces without daylighting control																								
D = Where daylighting control is required, "D" designation indicates controls required in the space for code compliance design																								
CK = Captive Key Switch system for use in Hotel/Motel and Guest Suites																								
NOTES:																								
¹ Lighting may be Manual On or Auto Partial On to ≤50%. Full Auto On to 100% is only permitted in Public Corridors, Stairways, Primary Entrances, Lobbies, Restrooms and where Manual On endangers safety or security. ² Partial Auto Off must reduce lighting by ≥50% during normal operating hours in warehouse aisles and warehouse open areas. Each aisle must be independently controlled. Full Auto Off would comply with Partial Auto Off. ³ Exterior / Parking / Site lighting must Auto Off during daylight hours, reduce by at least 30% between the hours of midnight and 6AM or from one hour after business close until 6AM before business opening. ⁴ Automatic daylight control required where ≥150W of lighting is in the daylight or sidelight daylight area. Continuous dimming with Off is used and assumes 0-10V dimming fixtures in daylight and non-daylight area unless known otherwise. ⁵ Code requires automatic continuous dimming with full Off capability in daylighting areas of offices, classrooms, labs and library reading rooms. ⁶ Manual bi-level lighting reduction control must allow ≥50% of the general lighting to be manually turned off by a control device located in the space. ⁷ Display, Accent and Task lighting must be independently controlled from other lighting in the space. It is required to Auto Off with occupancy sensors or time switch control, but is exempt from automatic daylighting control.																								

TYPE	MANUFACTURER / #/MODEL (BASIS OF DESIGN)	MOUNTING	LAMPS	LOAD	VOLTAGE	REMARKS	NOTES
A	LITHONIA LIGHTING - CPX 2X4 4300LM 40K UV-OLT	CEILING RECESSED	LED	39VA	UNV	LED 2X4 FIXTURE	
A/E	LITHONIA LIGHTING - CPX 2X4 4300LM 40K UV-OLT	CEILING RECESSED	LED	39VA	UNV	SAME AS A, PROVIDE WITH EMERGENCY BATTERY BACK UP	
C	FINELITE, INC. - HP2-D-22H-S-840	CEILING RECESSED	LED	160VA	UNV	LED LINEAR RESTROOM FIXTURE	
D	LITHONIA LIGHTING - CSS L48 AL03 347 SWW6 80CRI (4000LM 4000K)	CEILING RECESSED	LED	6VA	UNV	6 INCH LBR DOWNLIGHT 500LM 4000K CLEAR SEMI-SPECULAR WIDE 80 CRI	
DE	LITHONIA LIGHTING - CSS L48 AL03 347 SWW6 80CRI (4000LM 4000K)	CEILING RECESSED	LED	6VA	UNV	SAME AS D, PROVIDE WITH EMERGENCY BATTERY BACK UP	
F	LITHONIA LIGHTING - CPHB 18000LM HEF GCL WD 347 40K 80CRI	CEILING RECESSED	LED	134VA	UNV	Compact Pro High Bay, 18000 lumens, High efficiency, Glare control lens, Wide distribution, 347V, 4000 K, 80CRI.	
FE	LITHONIA LIGHTING - CPHB 18000LM HEF GCL WD 347 40K 80CRI	CEILING RECESSED	LED	134VA	UNV	SAME AS F, PROVIDE WITH EMERGENCY BATTERY BACK UP	
NE	LITHONIA LIGHTING - CSS L48 AL03 347 SWW6 80CRI (4000LM 4000K)	SURFACE	LED	39VA	UNV	Contractor LED Single Strip Light, 48", Switchable lumens (4000LM / 4000LM / 5000LM), 347V, Switchable White (3500K, 4000K, 5000K), 80 CRI. Set to 4000LM 4000K, PROVIDE WITH BATTERY BACKUP	
W	LITHONIA LIGHTING - WPX1 LED P2 40K MV-OLT	SURFACE	LED	24VA	UNV	LED WALL PACK	
WE	LITHONIA LIGHTING - WPX1 LED P2 40K MV-OLT	SURFACE	LED	24VA	UNV	SAME AS W, PROVIDE WITH EMERGENCY BATTERY BACK UP	
All lighting fixture shop patterns must be submitted by Architect for manufacturer's change. The GC to confirm all notes and methods with Architect prior to ordering. All fixture colors not confirmed shall be replaced at the GC's expense. Mounting heights of all wall mounted fixtures, suspended and pendant mounted fixtures are to be confirmed with the Architect prior to ordering. Refer to Architect's reflected ceiling plans for exact location of all light fixtures. The light fixtures scheduled are the basis of design. It is not intended to limit competition from equal manufacturers. All bidders shall submit their proposed light fixture submittal form a minimum of 10 business days prior to bid date for review. Approved light fixtures will be issued as an addendum.							

NOTES:

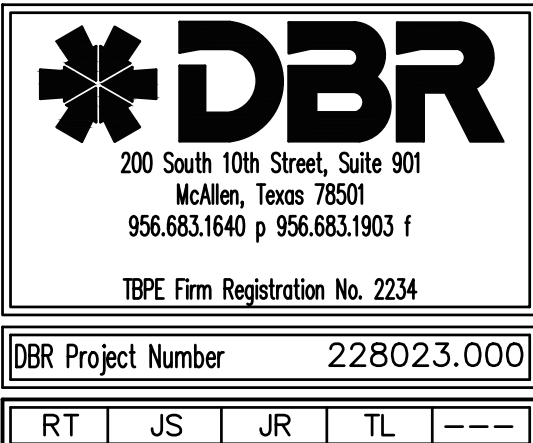
ADDENDUM #1, ATTACHMENT #4

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ARCHITECTS, INC.



GYMNASIUM ADDITIONS / IMPROVEMENTS
FOR CANTERBURY & ESCAND



ABBREVIATIONS

A	
ABV	AIR (COMPRESSED)
A/C	ABOVE
AC	AIR CONDITIONING
ACCH	ALTERNATING CURRENT, AIR COMPRESSOR
ACCU	AIR COOLED CHILLER
AD	AIR COOLED CONDENSING UNIT
ADJ	ACCESS DOOR, AREA DRAIN
AF	ADJUSTABLE
AFC	AIR FILTER
AFF	ABOVE FINISHED CEILING
AFG	ABOVE FINISHED FLOOR
AHRI	ABOVE FINISHED GRADE
AHU	AIR-CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE
AL	AIR HANDLING UNIT
AMB	ALUMINUM
AP	AMBIENT
APD	ACCESS PANEL
ARCH	AIR PRESSURE DROP
AS	ARCHITECT, ARCHITECTURAL
ASHRAE	AIR SEPARATOR
ASME	AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS
ASTM	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AV	AMERICAN SOCIETY OF TESTING AND MATERIALS
AVG	ACID VENT, AIR VENT
AW	AVERAGE
AWS	ACID WASTE
AUX	AMERICAN WELDING SOCIETY
	AUXILIARY

B	
B	BOILER
BC	BELOW COUNTER
B/C	BACK OF CURB
BFF	BELOW FINISHED FLOOR
BFV	BUTTERFLY VALVE
BH	BOX HYDRANT
BLDG	BUILDING
BM	BENCHMARK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STRUCTURE
BTU	BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
BWV	BACK WATER VALVE

C	
C	CELSIUS
CAB	CABINET
CB	CATCH BASIN
CD	CONDENSATE DRAIN LINE
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CH	CHILLER
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CI	CAST IRON
CIRC	CIRCULATING
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMB	COMBINATION
COMP	COMPRESSOR
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONT	CONTINUOUS, CONTINUATION
CTR	CENTER
CU	COPPER

D	
D	DEPTH, DRAIN, DRYER
DB	DRY BULB
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DDMB	DUAL DUCT MIXING BOX
DESIG	DESIGNATION
DTL	DETAIL
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DPR	DAMPER
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP
DX	DIRECT EXPANSION

E	
EA	EACH
EAT	ENTERING AIR TEMPERATURE
ECC	ELECTRICAL CONTRACTOR
EDB	ECCENTRIC
EDH	ENTERING DRY BULB
EF	ELECTRIC DUCT HEATER
EFF	EXHAUST FAN
EF	EFFICIENCY
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EMERG	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EVAP	EVAPORATOR
EWB	ENTERING WET BULB
EW	ENTERING WATER TEMPERATURE
EXT	EXPLOSION PROOF
EXT	EXTERNAL
EXTG	EXISTING

F	
F	FAHRENHEIT, FIRE
FBO	FURNISHED BY OTHERS
FCO	FLOOR CLEAN OUT
FCU	FLOOR CONTROL STATION
FD	FAN COIL UNIT
FDC	FLOOR DRAIN, FIRE DAMPER
FDV	FIRE DEPARTMENT SIAMSE CONNECTION
FI	FIRE DEPARTMENT VALVE
FI	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FLA	FULL LOAD AMPS
FLEX	FLOOR
FLR	FIRE HYDRANT
FPTU	FAN POWERED TERMINAL UNIT
FT	FOOT, FEET
FUT	FUTURE

G	
G	GAS
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GLV	GLOBE VALVE
GND	GROUND
GPM	GALLONS PER MINUTE
GV	GATE VALVE

H	
HORIZ	HORIZONTAL
HP	HORSEPOWER
HSTAT	HUMIDISTAT
HT	HEIGHT
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HWP	HEATING WATER PUMP
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	HERTZ

I	
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IH	INFRARED HEATER
IN	INCH
INSUL	INSULATION
INT	INTERNAL, INTERIOR
INV	INVERT
IW	INDIRECT WASTE

J	
JB	JUNCTION BOX
JP	JOCKEY PUMP

K	
KEC	KITCHEN EQUIPMENT CONTRACTOR
KO	KNOCKOUT
KVA	KILOVOLT- AMPS
KW	KILOWATT

L	
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LF	LINEAR FEET
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LVL	LEVEL
LWB	LEAVING WET BULB
LWCO	LOW WATER CUT OFF
LWT	LEAVING WATER TEMPERATURE

M	
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBTUH	THOUSAND OF BTU'S
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MP	MEDIUM PRESSURE
MS	MOP SINK
MTD	MOUNTED
MU	MAKE-UP
MVD	MANUAL VOLUME DAMPER
MSAH	MINI-SPLIT AIR HANDLER
MSCU	MINI-SPLIT CONDENSING UNIT

N	
N.C.	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE

O	
OA	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
OAHU	OUTSIDE AIR HANDLING UNIT
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
OFU	OUTSIDE AIR FAN COIL UNIT
OPG	OPENING
OS&Y	OPEN STEM AND YOLK

P	
PG	PRESSURE GAUGE
PP	POLYPROPYLENE
PPM	PART PER MILLION
PRI	PRIMARY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE

Q	
QTY	QUANTITY

R	
RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILLE
RAT	RETURN AIR TEMPERATURE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RE	REFERENCE, REFER
RED	REDUCER
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCING
REOD	REQUIRED
REV	REVISION, REVISE
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RLA	REFRIGERANT LIQUID
RM	RUNNING LOAD AMPS
RPM	ROOM
RS	REVOLUTIONS PER MINUTE
RTU	REFRIGERANT SUCTION
RV	ROOFTOP UNIT
	RELIEF VALVE

S	
SA	SUPPLY AIR
SAF	SUPPLY AIR FAN
SAG	SUPPLY AIR GRILLE
SAN	SANITARY SEWER
SAR	SUPPLY AIR REGISTER
SC	STEAM CONDENSATE
SCHED	SCHEDULED
SD	STORM DRAIN
SEC	SECONDARY
SECT	SECTION
SENS	SENSIBLE
SF	SQUARE FEET
SFCS	SPRINKLER FLOOR CONTROL STATION
SH	SHOWER
SHT	SHEET
SIM	SIMILAR
SK	SINK
SM	SHEETMETAL
SP	STATIC PRESSURE, SUMP PUMP
SPEC	SPECIFICATION
SPR	SPRINKLER
SQ	SQUARE
SS	SERVICE SINK
SSSC	SOLID STATE SPEED CONTROL
STD	STANDARD
STL	STEEL
STR	STRAINER
SURF	SURFACE
SUSP	SUSPEND
SV	SANITARY VENT
SW	SOFT WATER

T	
TC	TEMPERATURE CONTROL
TCC	TEMPERATURE CORNEAL COMPRESSOR
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TF	TRANSFER FAN
TH	THRUST BLOCK
TH BLK	THERMOMETER
THERM	THERMOSTATIC MIXING VALVE
TMV	TRAP PRIMER
TP	TRAP PRIMER DEVICE
TPD	TOTAL STATIC PRESSURE
TSP	THERMOSTAT
TSTAT	TEMPERED HOT WATER
TW	TYPICAL

U	
U	URINAL
UCD	UNDER CUT DOOR
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC
UNO	UNLESS NOTED OTHERWISE
U/F	UNDERFLOOR
U/S	UNDERSLAB

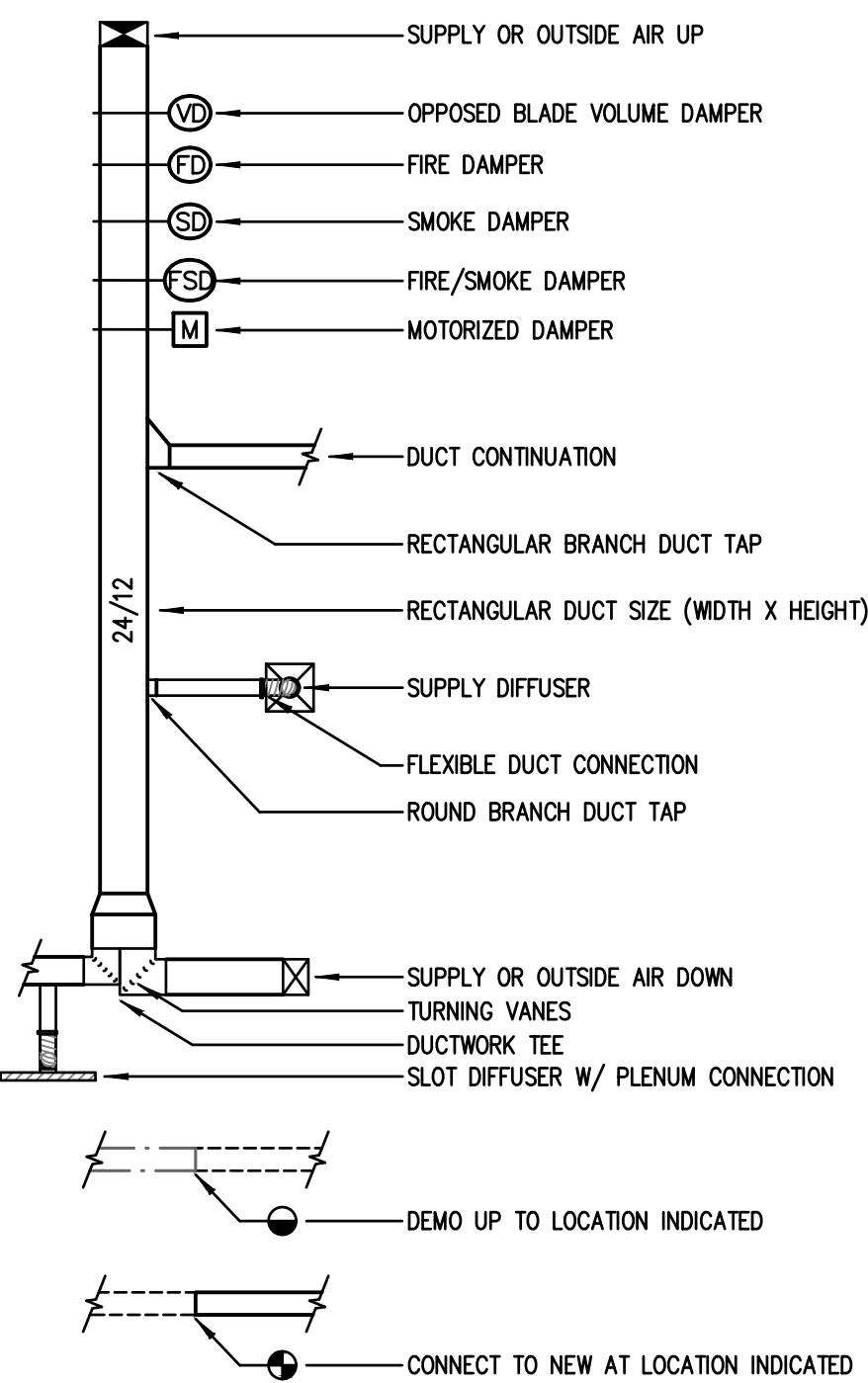
V	
V	VOLT
VA	VOLT- AMPERE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VALVE BOX, VACUUM BREAKER
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VED	VARIABLE FREQUENCY DRIVE
VB	VALVE IN BOX
VOV	VALVE ON VERTICAL
VP	VACUUM PUMP
VR	VARIABLE AIR VOLUME REHEAT
VTR	VENT THRU ROOF

W	
W	WATT, WIDTH
W/O	WITHOUT
WB	WET BULB
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WNF	WELDED WIRE FABRIC

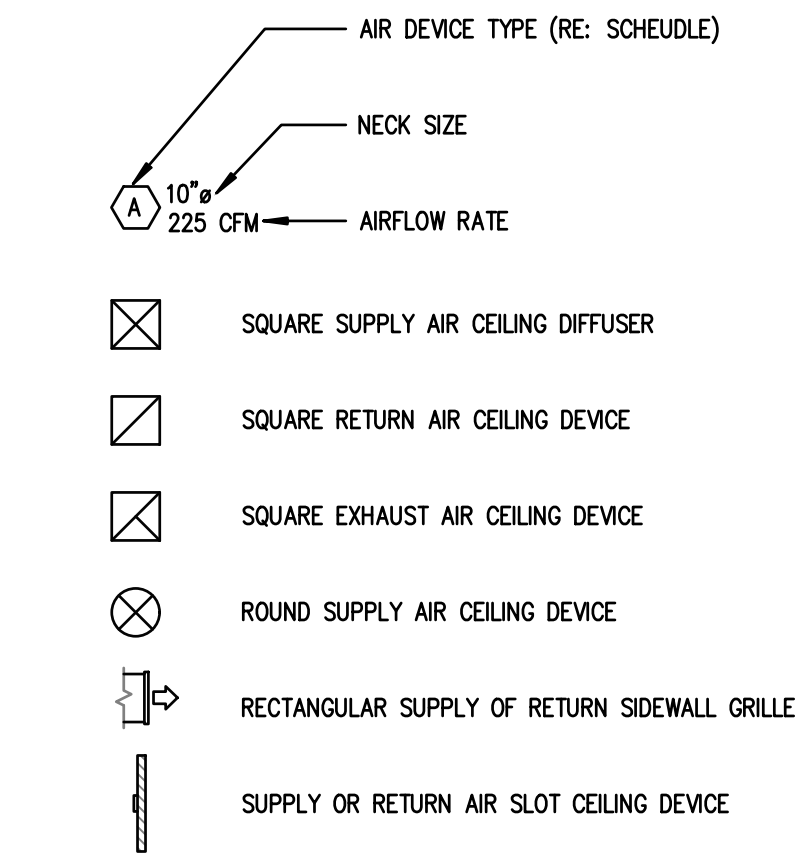
Y	
Y	YARD HYDRANT

Z	
Z	ZONE

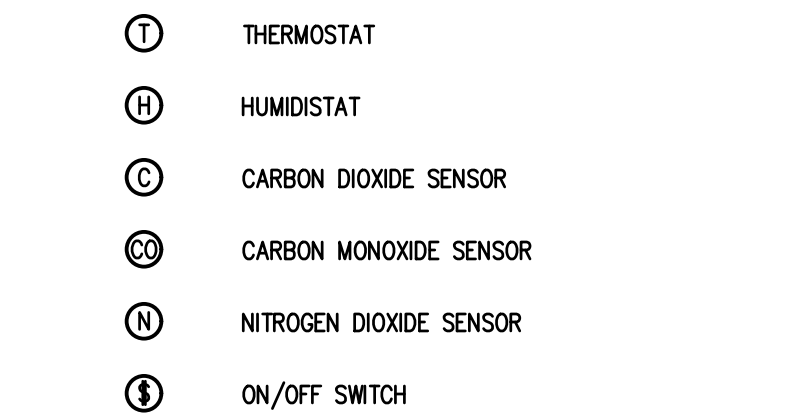
DUCTWORK



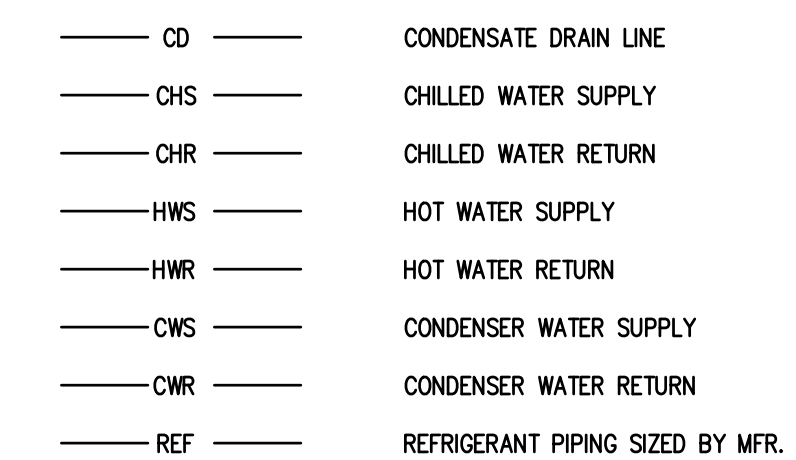
AIR DEVICE TYPES



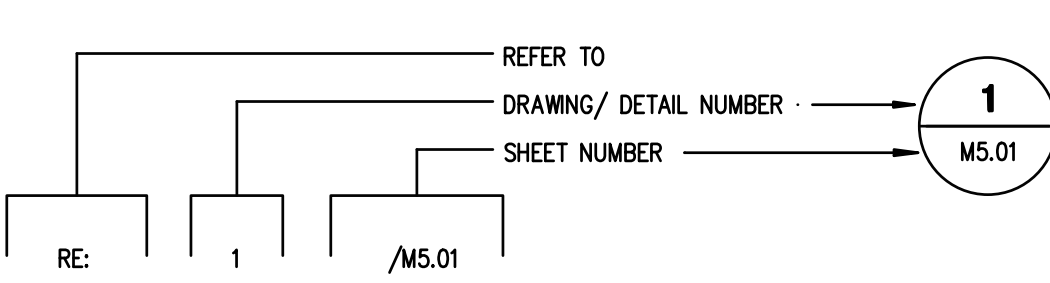
WALL MOUNTED SENSOR TYPES



PIPING TYPES



DRAWING/DETAIL REFERENCE KEY



MECHANICAL GENERAL NOTES

1. PIPING AND DUCTWORK SHOWN ON PLANS ARE SCHEMATIC ONLY. COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING, OFFSET AND RUN PIPING DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ALL NECESSARY PIPING, DUCTWORK, FITTING, INSULATION, AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATIONS.
2. EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER DRAWINGS AND CUTSHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF CONCRETE HOUSEKEEPING PADS.
3. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE DIMENSIONS.
5. PROVIDE RECTANGULAR BRANCH DUCT TAP FOR ALL RECTANGULAR DUCT CONNECTIONS TO RECTANGULAR DUCT TRUNKS.
6. ALL MEDIUM AND LOW PRESSURE DUCTWORK AND ASSOCIATED ACCESSORIES SHALL BE CONSTRUCTED TO MEET THE LATEST SMACNA STANDARDS FOR MEDIUM AND LOW PRESSURE DUCTWORK.
7. ALL OUTSIDE AIR, SUPPLY AIR, AND RETURN AIR DUCTWORK AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHERE LOCATED IN UNCONDITIONED SPACES AND SHALL BE INSULATED WITH A MINIMUM OF R-8 INSULATION WHERE LOCATED OUTSIDE THE BUILDING. REFER TO SPECIFICATION 23 07 13 DUCT INSULATION FOR FURTHER INFORMATION AND ADDITIONAL REQUIREMENTS.
8. ALL DUCTWORK SHALL BE CONSTRUCTED TO SEAL CLASS 'A' AS REFERENCED IN SMACNA STANDARDS. ALL NON-WELDED JOINTS AND SEAMS SHALL BE SEALED. THIS INCLUDES BUT IS NOT LIMITED TO TRANSVERSE JOINTS, LONGITUDINAL SEAMS, DUCT WALL PENETRATIONS, SPIN-INS, TAPS, AND OTHER BRANCH CONNECTIONS, ACCESS DOORS, ACCESS PANELS, AND DUCT CONNECTIONS TO EQUIPMENT. OPENINGS FOR ROTATING SHAFTS SHALL ALSO BE SEALED WITH BUSHINGS. REFER TO SPECIFICATION 23 31 13 METAL DUCTWORK FOR FURTHER INFORMATION.
9. ALL EXPOSED DUCTWORK AND PIPING WITH ASSOCIATED ACCESSORIES IN AREAS WITH NO CEILING OR PARTIAL CEILING SHALL BE PAINTED. REFER TO ARCHITECT FOR COLOR.
10. DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR PRIOR TO ACTUAL INSTALLATION OF TEMPERATURE SENSORS AND HUMIDITY SENSORS.
11. PROVIDE REMOTE SPIN-IN DAMPER OPERATOR FOR SPIN-IN CONNECTIONS AND VOLUME DAMPERS LOCATED OVER GYPSUM CEILINGS.
12. PROVIDE AIRFOIL TYPE TURNING VANES IN ALL 90 DEGREE ELBOWS.
13. PROVIDE INSULATED ACCESS DOORS FOR DUCTWORK DOWNSTREAM OF AIR HANDLING UNITS AT EVERY 20'-0" TO FACILITATE DUCT CLEANING. PROVIDE ACCESS DOORS WITHIN 5'-0" OF EACH ELBOW.
14. COORDINATE LOCATIONS OF FLOOR AND WALL OPENINGS WITH ARCHITECT AND STRUCTURAL ENGINEER.
15. ALL CEILING MOUNTED AND WALL MOUNTED AIR DEVICE FINISHES SHALL MATCH ADJACENT ARCHITECTURAL SURFACE. CONTRACTOR SHALL COORDINATE COLOR WITH ARCHITECT.
16. NO PIPE HANGERS SHALL BE SPACED MORE THAN 10'-0" O.C. COMPLY WITH PIPE SPACING AS SPECIFIED IN THE PIPING SUPPORT SPECIFICATIONS.
17. MECHANICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL OUTSIDE AIR INTAKES TO MAINTAIN 15 FEET DISTANCE BETWEEN OUTSIDE AIR INTAKES AND ANY EXHAUST AIR OUTLET, FLUES OR PLUMBING VENTS.
18. MECHANICAL CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR FOR ALL CONDENSATE DRAIN PIPES CONNECTING TO A SINK DRAIN TAIL PIECE.

CONTROLS SCHEMATIC SYMBOLS LEGEND

AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI/BI	DIGITAL/BINARY INPUT
DO/BO	DIGITAL/BINARY OUTPUT
MD	ON-OFF MOTORIZED DAMPER
MMD	MODULATING TYPE MOTORIZED DAMPER
AFMS	AIR FLOW MEASURING STATION
MCV	CONTROL VALVE MODULATING TYPE
VFD	VARIABLE FREQUENCY DRIVE
CSR	CURRENT SENSING RELAY
FRZ	FREEZE STAT
HSL	HIGH STATIC LIMIT
SPT	STATIC PRESSURE TRANSMITTER
DPT	DIFFERENTIAL PRESSURE TRANSDUCER
FM	FLOW METER
FS	FLOW SWITCH
DAT	DISCHARGE AIR TEMPERATURE SENSOR
S	WALL SENSOR
T	THERMOSTAT
CO2	CARBON DIOXIDE SENSOR
SP	SET POINT
S/A	SUPPLY AIR
R/A	RETURN AIR
O/A	OUTSIDE AIR
HC	HEATING COIL
CC	COOLING COIL
DX	DIRECT EXPANSION COOLING COIL
PICCV	PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE
AFC	AIRFLOW CROSS
DPS	DIFFERENTIAL PRESSURE SWITCH



DBR Project Number		228023.000		
RT	JS	JR	TL	---

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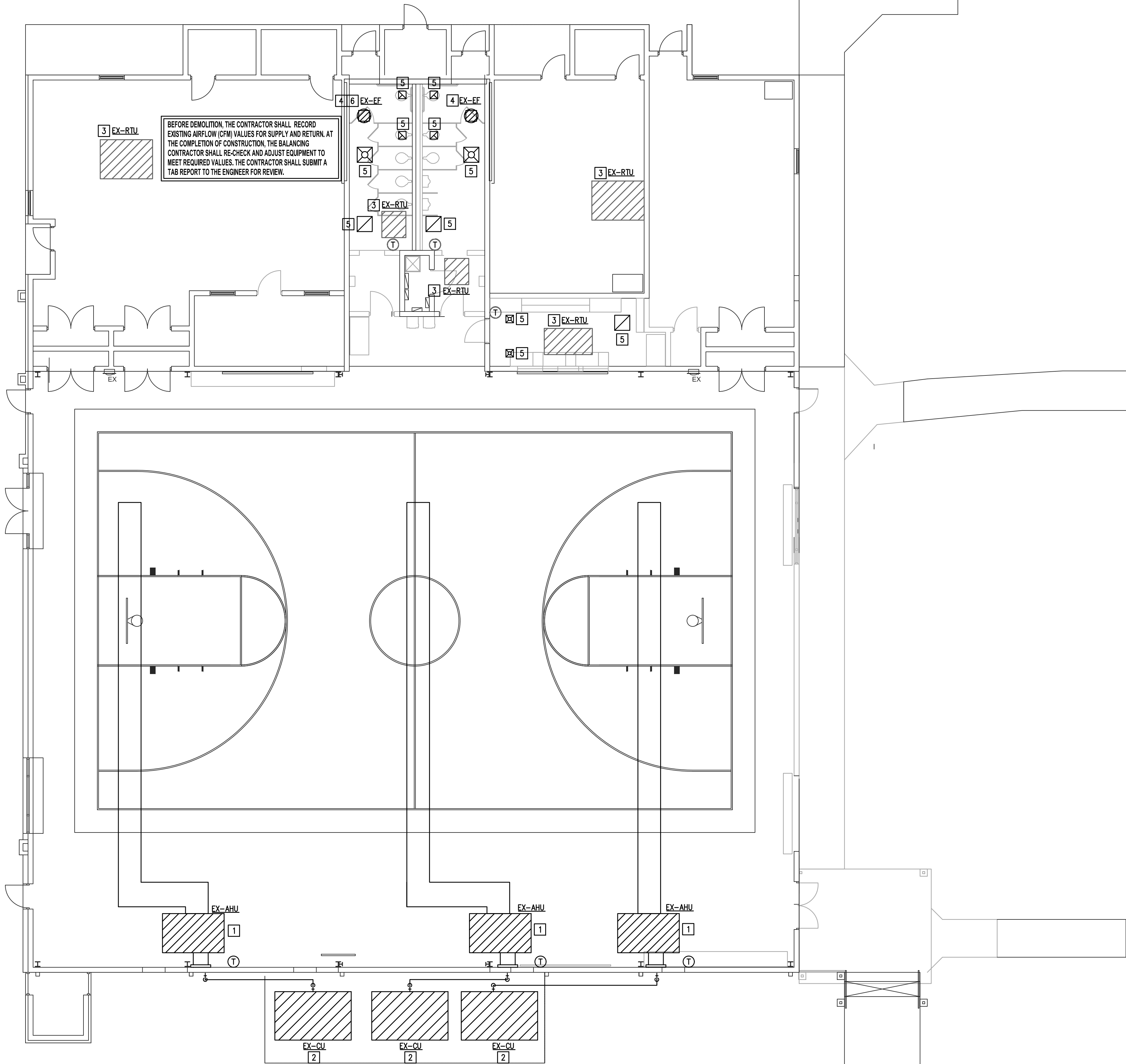
EGV ARCHITECTS, INC.

STATE OF TEXAS
ROBERTO H. TUERINA
121946
PROFESSIONAL ENGINEER
11/07/2022

**GYMNASIUM ADDITIONS / IMPROVEMENTS
FOR CANTERBURY & ESCANDON ELEMENTARY SCHOOLS**
EDINBURG
TEXAS

JOB NO.
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M0.01 SHEET
OF



MECHANICAL DEMO GENERAL NOTES

A. IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE VERIFIED EXISTING JOBSITE CONDITIONS DURING THE BIDDING PERIOD, SO THEY HAVE OBTAINED THE SCOPE OF THE MECHANICAL DEMOLITION WORK INVOLVED AS A RESULT OF MODIFICATIONS TO THE EXISTING STRUCTURE. THE SCOPE OF WORK SHALL INCLUDE MATERIALS AND DUCTWORK CONSISTING OF DEVICES, EQUIPMENT, OR APPARATUS WHICH MAY BE REROUTED, RELOCATED, OR REMOVED EITHER TEMPORARILY OR PERMANENTLY, OR WHICH MUST BE REROUTED OR REMOVED EITHER ACCOMPLISHED. NOT ALL EXISTING CONDITIONS ARE NECESSARILY INDICATED ON DRAWINGS, CONTRACTOR SHALL DEMOLISH ONLY WHAT IS INDICATED TO BE DEMOLISHED ON DRAWINGS.

B. CONTRACTOR SHALL COORDINATE WITH OWNER FOR ALL EQUIPMENT BEING REMOVED. OWNER SHALL RESERVE THE RIGHT TO CLAIM ALL EQUIPMENT, DUCTWORK, AND AIR DEVICES REMOVED DURING DEMOLITION.

C. CONTRACTOR TO REPORT ANY DAMAGED EQUIPMENT THAT IS SHOWN AS EXISTING TO REMAIN TO THE OWNER PRIOR TO STARTING ALL WORK. ALL EQUIPMENT FOUND TO BE DAMAGED AT THE TIME OF SUBSTANTIAL COMPLETION, THAT HAD NOT BEEN REPORTED PRIOR TO CONSTRUCTION, CONTRACTOR TO REPAIR AT THEIR OWN COST.

D. ALL REMOVED EQUIPMENT WITH ACCESS TO DUCTWORK, SHAFTS, OR PIPING, SHALL HAVE ALL CONNECTIONS TO THESE MATERIAL CLEANED, WHERE THE MATERIALS ARE REUSED. FOR EXAMPLE, EXHAUST SHAFTS THAT ARE SCHEDULED FOR REUSE AND SHALL BE CLEANED TO THE FULLEST EXTENT POSSIBLE. NOTIFY ARCHITECT/ENGINEER TEAM OF ANY DEFICIENCIES FOUND UPON REMOVAL OF HVAC SYSTEM, THAT ARE NOT INDICATED IN THESE PLANS AND SPECIFICATIONS.

E. ALL EQUIPMENT, DUCTWORK, CONTROLS AND ACCESSORIES FOUND TO BE ABANDONED SHALL BE REMOVED.

F. ALL EXISTING DUCTWORK AND EQUIPMENT TO BE REUSED MUST BE CLEANED, PAINTED, AND ALL DAMAGED PARTS MUST BE REPAIRED OR REPLACED.

G. CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH BUILDING FACILITY AS TO NOT DISTURB OPERATING HOURS.

H. CONTRACTOR SHALL COORDINATE CLEARANCES WITH ALL APPLICABLE TRADES TO ENSURE THAT ALL NECESSARY CODES ARE IN COMPLIANCE.

- MECHANICAL DEMO KEYED NOTES**

1 EXISTING SUSPENDED AIR HANDLING UNIT AND ALL ASSOCIATED DUCTWORK, GRILLES, DAMPERS, AND MOUNTING HARDWARE TO BE REMOVED FROM SPACE. EXISTING REFRIGERANT LINES ROUTED TO ASSOCIATED CONDENSING UNIT TO BE REMOVED IN ITS ENTIRETY.

2 REMOVE CONDENSING UNIT AND ASSOCIATED REFRIGERANT PIPING, CONTROLS CONDUIT, CONTROLS WIRING, AND EQUIPMENT RAILS. ALL ASSOCIATED ABANDONED WALL PENETRATIONS SHALL BE SEALED WEATHER AND MOISTURE TIGHT WITH VAPOR BARRIER AND MATERIALS TO MATCH EXISTING. REMOVE CONCRETE PADS, CHAIN LINK FENCE, FOOTINGS, AND GATES. FIELD VERIFY EXISTING CONDITIONS.

3 EXISTING ROOF TOP UNITS TO REMAIN. COORDINATE WITH NEW WORK REQUIREMENTS.

4 EXISTING EXHAUST FAN WITH ALL ASSOCIATED CONTROLS, ELECTRICAL, HANGERS, SUPPORTS, AND ACCESSORIES SHALL BE REMOVED. COORDINATE EXTEND OF DUCT DEMOLITION WITH NEW WORK REQUIREMENTS. EXISTING ROOF CURB SHALL REMAIN FOR RE-USE.

5 EXISTING SUPPLY DIFFUSER, RETURN GRILLE, OR EXHAUST GRILLE WITH ALL ASSOCIATED DAMPERS, HANGERS, AND ACCESSORIES SHALL BE REMOVED. COORDINATE EXTEND OF DUCT DEMOLITION WITH NEW WORK REQUIREMENTS. SEAL DUCT OPENINGS TO PROVIDE TEMPORARY DUST PROTECTION.

6 EXISTING ROOF CURB TO REMAIN. CAP AND MAKE WATER TIGHT.

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TBPE Firm Registration No. 2234

DBR Project Number 228023.000

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1

MD1.11

COMPOSITE LEVEL 1 MECHANICAL
DEMOLITION PLAN

1/8" = 1'-0"

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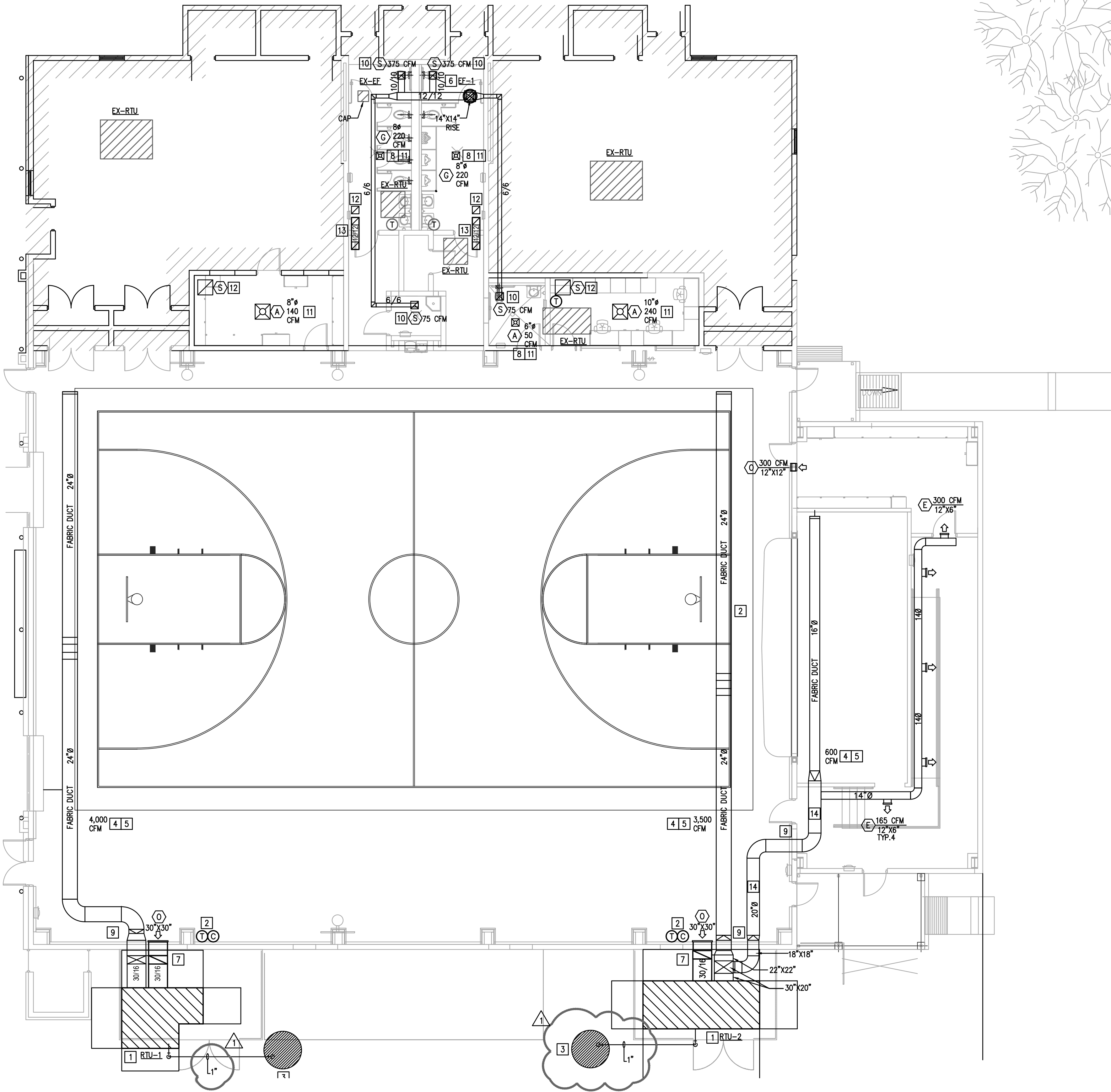
ARCHITECTS, INC.

GYMNASIUM ADDITIONS / IMPROVEMENTS
FOR CANTERBURY & ESCANDON ELEMENTARY SCHOOLS

EDINBURG TEXAS

JOB NO.
FILE NO. DWG/

MD1.11 SHEET
OF



1 COMPOSITE LEVEL 1 MECHANICAL PLAN
M1.11 1/8" = 1'-0"

MECHANICAL GENERAL NOTES:

- A. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EXISTING EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT UPON PROJECT COMPLETION, THE EXISTING MECHANICAL SYSTEMS, CONDUIT, DUCTWORK, ETC... BE READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- B. WORK SHALL BE DONE SO AS TO MINIMIZE DISRUPTION TO BUILDING ACTIVITIES. KEEP BUILDING SERVICES IN FULL OPERATION DURING NORMAL BUSINESS HOURS.
- C. SCHEDULING SHALL BE CLOSELY COORDINATED WITH THE OWNER AND NO WORK SHALL PROCEED WITHOUT AN OWNER-APPROVED SCHEDULE. SCHEDULE ALL SHUTDOWNS AT LEAST 48 HOURS IN ADVANCE WITH OWNER IN WRITING. REFER TO SPECIFICATIONS FOR AREAS REQUIRING SPECIAL ACCESS, SCHEDULING, AND/OR SECURITY.
- D. PROTECTION OF BUILDING PERSONNEL, FURNISHINGS AND SYSTEMS FROM HAZARD AND/OR CONTAMINATION ASSOCIATED WITH DEMOLITION AND CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS.
- E. CONTRACTOR SHALL COORDINATE REMOVAL AND OFF-SITE DISPOSAL OF EXISTING MATERIALS AND ROUTING OF ANY NEW PIPING, CONDUIT, DUCTWORK AT THE JOB SITE TO AVOID DAMAGE OR CONFLICT WITH EXISTING SYSTEMS AND STRUCTURE. OBTAIN APPROVAL OF OWNER'S REPRESENTATIVE BEFORE DISPOSING OF ITEMS. ITEMS TO KEEP SHALL BE DELIVERED TO THE OWNER.
- F. ANY EXISTING CLOCKS IN HALLWAYS SUSPENDED FROM CEILING, TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. CLOCKS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT CLOCK SYSTEM IS WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.
- G. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND, AS NECESSARY, THE OWNER.
- H. CONTRACTOR SHALL COORDINATE ROUTING OF ANY NEW PIPING OR DUCTWORK AT THE JOB SITE TO AVOID CONFLICT WITH EXISTING SYSTEMS, STRUCTURE, LIGHT FIXTURES AND PLUMBING LINES.
- I. COMPLETION: UPON COMPLETION OF THE WORK, AND PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL FURNISH TO THE OWNER IN THE FORM AND QUANTITIES REQUIRED BY THE SPECIFICATIONS: OWNER'S MANUAL AND PROJECT RECORD DRAWINGS.
- J. NEW HVAC DUCTWORK, UNLESS NOTED OTHERWISE, TO BE GALVANIZED SHEET METAL SIZED, CONSTRUCTED, AND INSTALLED IN ACCORDANCE WITH THE SMACNA RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. SIZES SHOWN ON PLANS ARE IN METAL DIMENSIONS. ROUTE DUCTWORK SO AS TO MINIMIZE OFFSETS. FIELD VERIFY ROUTING ABOVE EXISTING CEILING. SEAL ALL DUCT SEAMS AIR TIGHT: MAXIMUM AIR LEAKAGE RATE = 5%.
- K. CONTRACTOR SHALL PROTECT EXISTING SECURITY CAMERAS DURING CONSTRUCTION AND SHALL CONFIRM CAMERAS ARE OPERATIONAL UPON CONSTRUCTION COMPLETION.
- L. SMOKE DETECTORS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. COVER ALL SMOKE DETECTORS FOR PROTECTION.
- M. PACKAGED AIR HANDLER UNIT DIMENSIONS AND CLEARANCES SHOWN SHALL BE IN REFERENCE TO SPECIFIC UNIT SCHEDULED. UNIT DIMENSIONS AND CLEARANCES MAY VARY DEPENDING ON MAKE/MODEL OF UNIT. COORDINATE WITH ARCHITECT PRIOR TO PURCHASING EQUIPMENT TO VERIFY FINAL DIMENSIONS AND CLEARANCES FIT WITHIN FENCED AREA.
- N. FABRIC AIR DUCT AIR DISTRIBUTION PROVIDED SHALL BE DESIGNED BY THE MANUFACTURER TO MAXIMIZE THROW AND COVERAGE OF SUPPLY AIR ACROSS ENTIRE SPACE IN THE DIRECTION SHOWN ON PLANS.

MECHANICAL KEYED NOTES

- 1 PROVIDE NEW, GROUND-MOUNTED PACKAGED AIR HANDLER AS SHOWN ON PLANS. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL RECOMMENDED CLEARANCES. SUPPLY AND RETURN DUCT SHALL BE ROUTED OUT FROM SIDE OF UNIT TO HIGHEST PENETRATION POINT WHILE REMAINING BELOW SLOPED ROOF STRUCTURE. COORDINATE EXACT PENETRATION POINT WITH FABRIC-AIR DUCT CONNECTION WITHIN BUILDING. DUCT SHALL PENETRATE EXTERIOR WALL AND IMMEDIATELY TRANSITION FOR CONNECTION TO FABRIC-AIR TYPE DUCTWORK SIZED AS SHOWN ON PLANS. PROVIDE CONCRETE PAD WITH 6" EXTENSIONS ON ALL SIDES FROM EDGE OF PACKAGED AIR HANDLER.
- 2 CONTROLS FOR HVAC SHALL BE BY A 24 VOLT 7-DAY PROGRAMMABLE THERMOSTAT WITH HEAT-OFF-COOL AND FAN ON-AUTO CAPABILITIES SHOWN ON DIGITAL DISPLAY. MOUNT THERMOSTAT AT 48" ABOVE FINISHED FLOOR. PROVIDE WITH KEVED CLEAR PLASTIC COVER.
- 3 PROVIDE DRY WELL AT APPROXIMATE LOCATION SHOWN. ROUTE 1" COPPER CONDENSATE LINE FROM RTU DOWN TO DRY WELL AS SHOWN ON PLANS. RE: MECHANICAL DETAILS.
- 4 ROUTE AIR DUCTWORK ACROSS GYM AS SHOWN ON PLANS. FROM INITIAL TRANSITION POINT, DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE SLOPED UP TO MATCH ROOF PITCH, TOWARDS THE HIGHEST POINT OF STRUCTURE. FROM HIGHEST POINT, DUCTWORK SHALL THEN SLOPE DOWN TO MATCH ROOF PITCH, TERMINATING AT APPROXIMATE LOCATION SHOWN. RE: DETAIL 3/M3.01.
- 5 DISPERSE CFM EVENLY ALONG ENTIRE LENGTH OF "VERONA" FABRIC DUCT. DIAMETER, QUANTITY, AND LOCATION OF REINFORCED ORIFICES TO BE SPECIFIED AND APPROVED BY MANUFACTURER. PROVIDE WITH "SKELECORE PULL-TIGHT" SYSTEM. AIR DIFFUSERS SHALL BE CONSTRUCTED WITH BOTH INTERNAL RETENTION AND EXTERNAL TENSIONING. MANUFACTURER MUST HAVE DOCUMENTED DESIGN SUPPORT INFORMATION INCLUDING DUCT SIZING, VENT, ORIFICE, AND/OR NOZZLE LOCATIONS. COLOR AND LOGO BY ARCHITECT.
- 6 CONTRACTOR SHALL INSTALL PROGRAMMABLE TIME CLOCK CONTROLLER EQUAL TO TORK #DGT00A. LOCATE IN ELECTRICAL ROOM.
- 7 OUTDOOR SUPPLY AND RETURN DUCTS SHALL BE PRE-INSULATED DUCT SYSTEMS EQUAL TO R-12 THERMADUCT. COORDINATE PACKAGED DX EQUIPMENT SUPPLY AND RETURN CONNECTIONS, HOUSEKEEPING PAD, CURBS, VIBRATION ISOLATION DEVICES, AND DUCTWORK PRIOR TO COMMENCEMENT OF WORK. EXTERIOR DUCTS SHALL RUN STRAIGHT FROM THE PACKAGED DX UNIT TO THE BUILDING AS SHOWN WITHOUT ANY OFFSET FITTINGS OR ELBOWS. SEAL WALL PENETRATION VAPOR TIGHT.
- 8 PROVIDE AND INSTALL CABLE OPERATED BALANCING DAMPER EQUAL TO ROTO-TWIST MODEL RT-150. EXTEND CABLE TO SUPPLY AIR DEVICE AND TERMINATE.
- 9 PROVIDE ESCUTCHEONS ON EXPOSED DUCT WALL PENETRATIONS.
- 10 PROVIDE AND INSTALL OPPOSED BLADE BALANCING DAMPER IN DUCT RISE ACCESSIBLE BY REMOVING GRILLE.
- 11 PROVIDE AND INSTALL NEW SUPPLY DIFFUSER, PROVIDE NEW DUCTWORK TO CONNECT TO EXISTING SUPPLY DUCT.
- 12 PROVIDE AND INSTALL NEW RETURN DIFFUSER, PROVIDE NEW DUCTWORK TO CONNECT TO EXISTING RETURN DUCT.
- 13 PROVIDE AND INSTALL NEW TRANSFER GRILLE AND TRANSFER DUCT.
- 14 PROVIDE ESCUTCHEONS ON EXPOSED DUCT WALL PENETRATIONS. BOTH EXPOSED ROUND DUCT AND RECTANGULAR DUCT SHALL BE DOUBLE WALL AND PAINT GRIP. EXPOSED INSULATION SHALL NOT BE ACCEPTABLE.

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M1.11 SHEET
OF

EGV ARCHITECTS, INC. 220 S. BRIDGE STREET PO BOX 8827 HIDALGO, TX 78557 TEL: (956) 843-2987 FAX: (956) 843-9726		 ARCHITECTS, INC.	
DATE:	NO.	REVISIONS	
DESIGNED:	1	Addendum #1	
DRAWN:			
CHECKED:			
SCALE:			

PACKAGED DX ROOF TOP UNIT SCHEDULE

MARK	RTU-1	RTU-2
DESIGN SUPPLY AIR (CFM)	4,000	5,110
MINIMUM SUPPLY AIR (CFM)	2,000	2,000
DESIGN OUTDOOR AIR (CFM)	1,520	1,880
MINIMUM OUTDOOR AIR (CFM)	1,520	1,880
IEER (SEER2)	17.7	19.4
EXT. S.P. (IN. W.G.)	1.00	1.00
FAN MOTOR HORSEPOWER	8.0	5.0
FAN TYPE	ECM	PLENUM
FAN DRIVE	DIRECT	DIRECT
COOLING DATA		
AMBIENT AIR (°F)	105.0	105.0
TOTAL COOLING CAPACITY (MBH)	163.1	190.1
TOTAL SENSIBLE CAPACITY (MBH)	128.5	154.2
EAT DB/WB (°F)	84.4/68.0	94.2/68.2
LAT DB/WB (°F)	55.0/55.0	56.6/56.5
HEATING DATA		
HEATING CAPACITY (KW)	36.0	45.0
EAT DB/WB (°F)	57.0	57.5
LAT DB/WB (°F)	85.3	85.2
ELECTRICAL DATA		
VOLTS/PHASE/HERTZ	460/3/60	460/3/60
MCA	62.6	79.9
MOCP	70.0	80.0
MANUFACTURER	DAIKIN	DAIKIN
MODEL NO.	DPS015A	DPS018A
OPERATING WEIGHT (LBS)	2,500	3,800
NOTES	ALL	ALL

- NOTES:
- EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO COIL(S), FILTERS, HOUSING, NOR ACCESSORIES.
 - PROVIDE UNIT WITH OUTDOOR AIR INTAKE HOOD WITH MODULATING MOTORIZED DAMPER.
 - PROVIDE UNIT WITH SINGLE POINT ELECTRICAL CONNECTION.
 - PROVIDE FLOAT SWITCH IN PRIMARY DRAIN PAN TO DE-ENERGIZE THE UNIT WHEN PRIMARY DRAIN LINE BECOMES RESTRICTED.
 - PROVIDE UNITS WITH MINIMUM MERV 13 FILTERS.
 - PROVIDE UNIT CONTROLLER BY MANUFACTURER. PROVIDE CONTROLLER WITH BACNET INTERFACE CARD FOR INTEGRATION WITH EMCS.
 - PROVIDE UNIT WITH HOT GAS RE-HEAT FOR HUMIDITY CONTROL.
 - PROVIDE UNIT WITH CONDENSER HAIL GUARD AND 14" PREFABRICATED ROOF CURB.
 - PROVIDE UNIT WITH COMPARATIVE ENTHALPY ECONOMIZER AND BAROMETRIC RELIEF.
 - PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH AND POWERED CONVENIENCE OUTLET.
 - PROVIDE UNIT WITH DUCT MOUNTED SMOKE DETECTORS IN SUPPLY DUCTWORK FOR ALL UNITS DISCHARGING IN EXCESS OF 2,200 CFM.
 - PROVIDE SIDE RETURN AND SIDE DISCHARGE CURBS FOR UNITS WHERE REQUIRED.

AIR DEVICE SCHEDULE

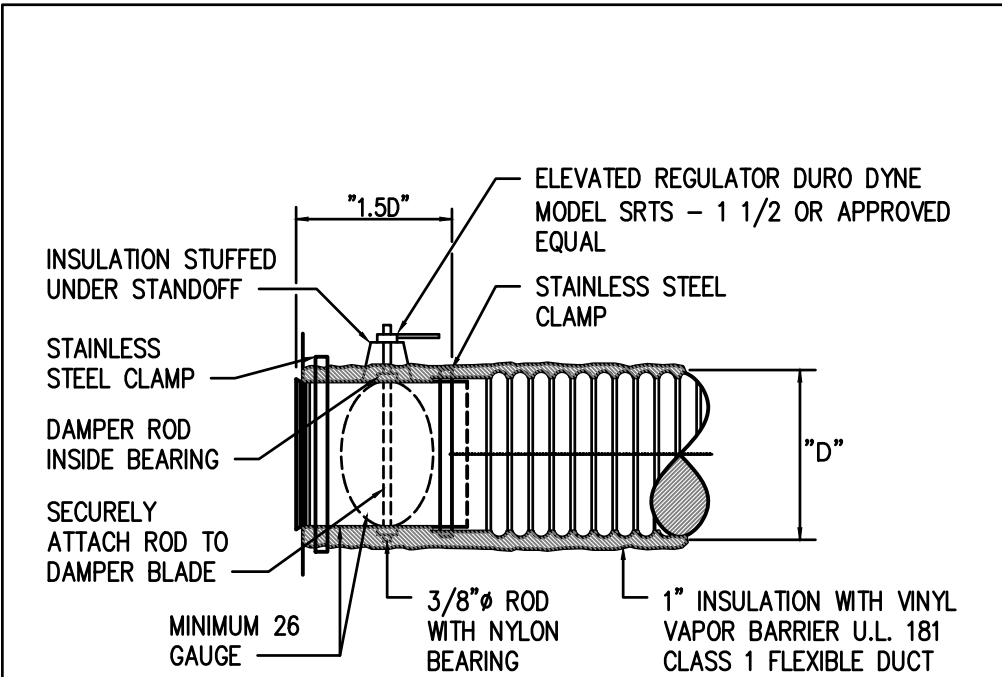
MARK	MFR. & MODEL	TYPE	REMARKS
A	TITUS TMS-AA	LOUVERED FACE SUPPLY AIR DIFFUSER	24"x24" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR LAY-IN CEILING.
E	TITUS 300FL	SIDEWALL SUPPLY AIR GRILLE	ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT. 3/4" BLADE SPACING, DOUBLE DEFLECTION WITH FRONT BLADES PARALLEL TO LONG DIMENSION. PROVIDE O.B.D.
F	TITUS 350FL	SIDEWALL RETURN AIR GRILLE	ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT. 3/4" BLADE SPACING, 35° DEFLECTION WITH BLADES PARALLEL TO LONG DIMENSION. PROVIDE O.B.D. FOR DUCTED EXHAUST.
G	TITUS TDC-AA	LOUVERED FACE SUPPLY AIR DIFFUSER	12"x12" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT.
O	TITUS 60FL	HEAVY DUTY RETURN AIR GRILLE	ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT. 0" DEFLECTION WITH HORIZONTAL BLADES.
S	TITUS 50F	EGGCRATE RETURN AIR GRILLE	ALUMINUM BORDER, 1"x1"x1" ALUMINUM CORE

- NOTES:
- REFER TO ARCHITECTURAL DRAWINGS FOR FINISH.
 - REFER TO MECHANICAL FLOOR PLAN FOR NECK SIZES.

FAN SCHEDULE

MARK	EF-1
SERVES	RESTROOM EXHAUST
TYPE/DRIVE	DOWNBLAST/DIRECT
CONTROL	TIME CLOCK
CFM (MIN./MAX.)	900
EXT. S.P. (IN. W.G.)	0.500
HORSEPOWER	1/4
FAN SPEED (RPM)	1,091
SONES (MAX.)	7.4
VOLTS/PHASE/HERTZ	120/1/60
MANUFACTURER	GREENHECK
MODEL NUMBER	G-120-VG
NOTES	ALL

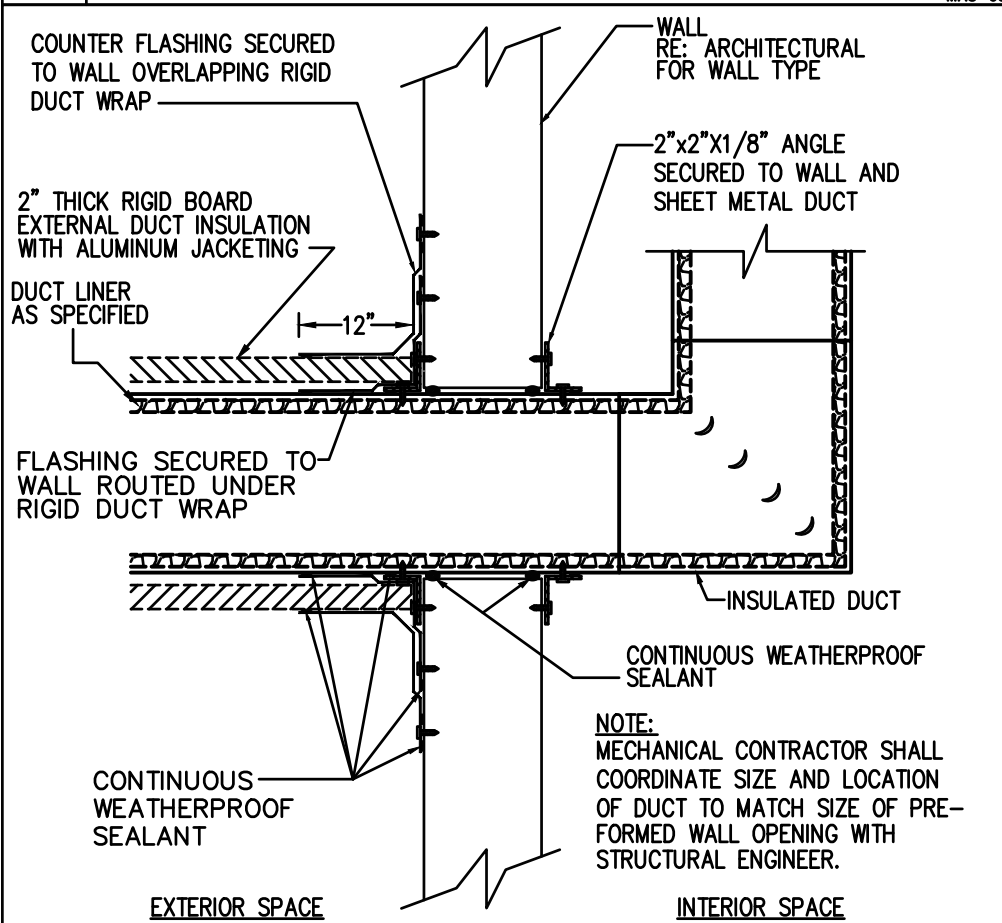
- NOTES:
- EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO FILTERS, HOUSING, NOR ACCESSORIES.
 - FAN SHALL HAVE FACTORY INSTALLED, PRE-WIRED INTEGRAL DISCONNECT SWITCH FROM FACTORY.
 - PROVIDE WITH DIRECT DRIVE, ELECTRONICALLY COMMUTATED FAN MOTOR (ECM).
 - FAN SHALL BE CONTROLLED THRU TIMECLOCK TO OPERATE DURING THE OCCUPIED PERIOD.
 - FAN SHALL BE PROVIDED WITH BACK DRAFT DAMPER.
 - FAN SHALL BE PROVIDED WITH ROOF CURB ADAPTOR TO FIT EXISTING ROOF CURB.



- NOTES:
- ALL FLEXIBLE DUCT OFFSETS AND BENDS SHALL MAINTAIN A RADIUS OF 1.5' X (7") MINIMUM 3'-0" AND MAXIMUM 6'-0"
 - TYPICAL OF ROUND DUCT CONNECTIONS TO RECTANGULAR DUCTS.
 - ALL JOINTS SHALL BE SEALED WITH MASTIC AND FIBER CLOTH PER SPECIFICATIONS.

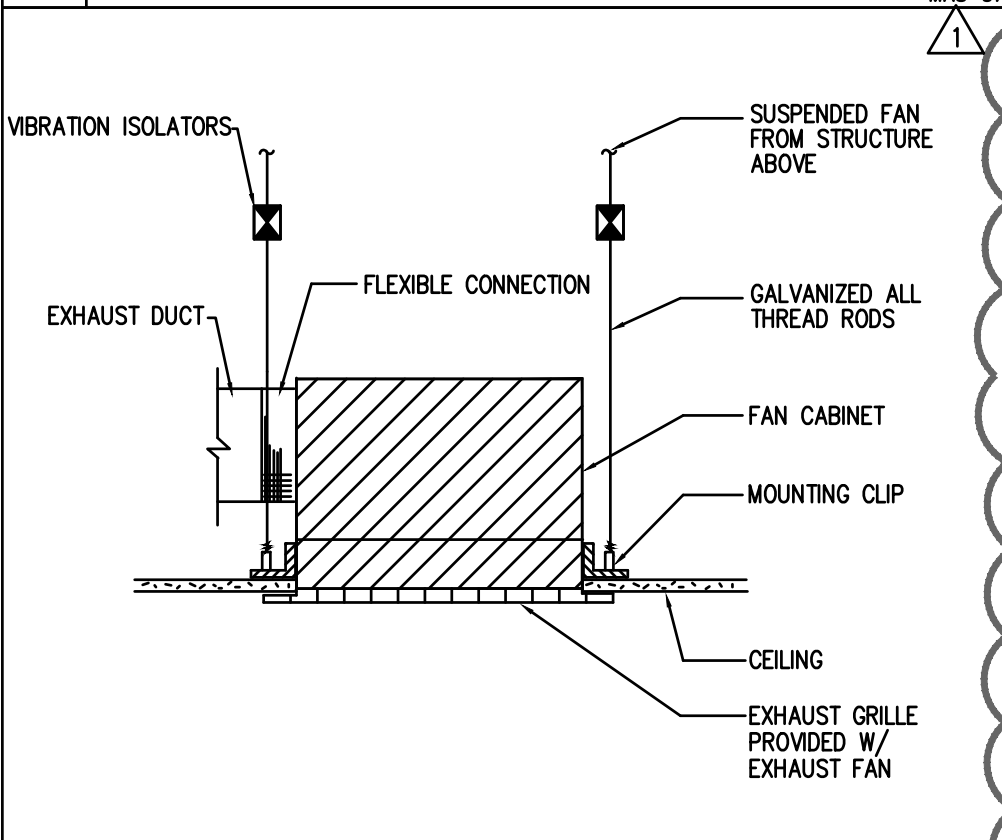
1 SPIN-IN DETAIL

NOT TO SCALE



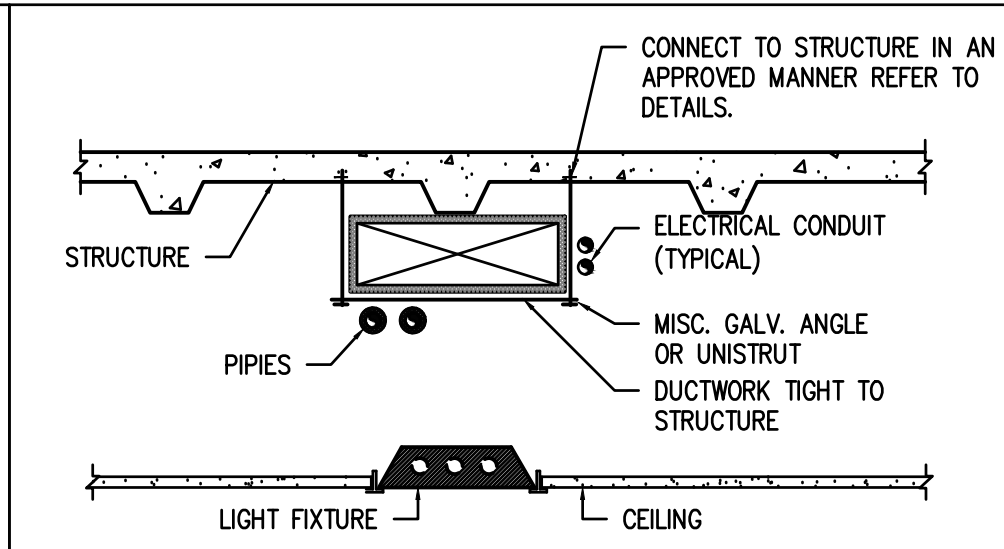
4 DUCT EXT. WALL PENETRATION

NOT TO SCALE



7 CEILING MOUNTED EXHAUST FAN

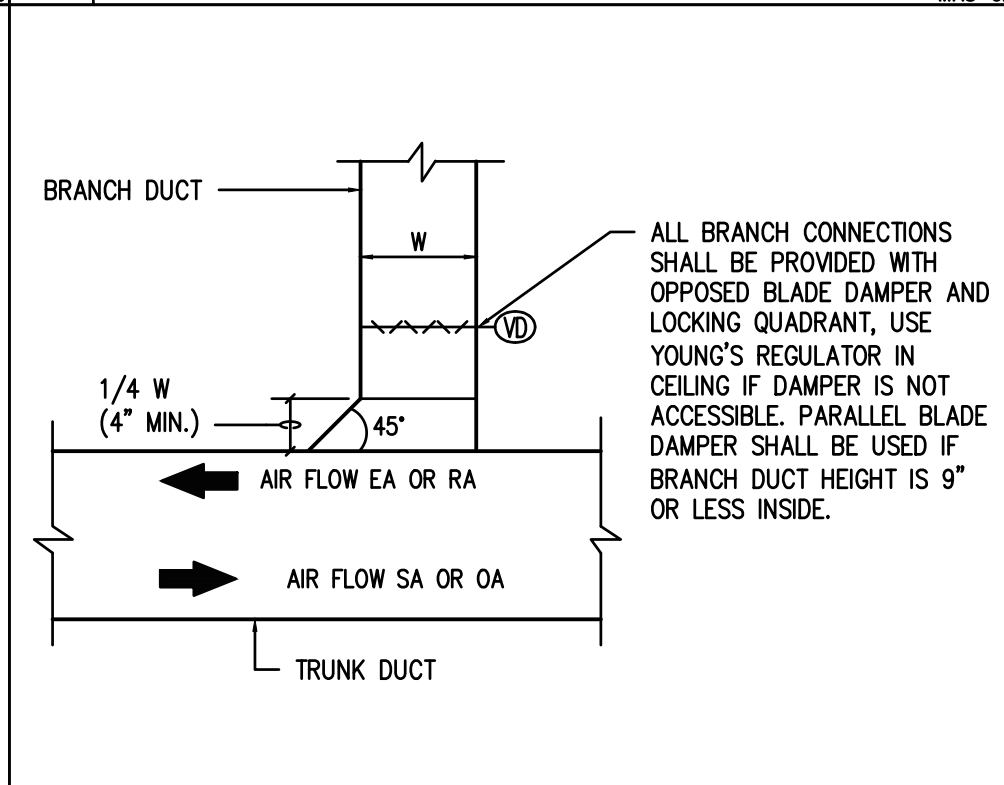
NOT TO SCALE



- NOTES:
- DUCT SHALL BE LOCATED AS HIGH AS POSSIBLE EXCEPT TO ALLOW MIN. 2" FOR EXTERNAL INSULATION.
 - MINIMUM BOTTOM OF PIPE OR BOTTOM OF DUCT ELEVATION IS 8" ABOVE CEILING HEIGHT.
 - INSTALLATION OF ALL SERVICES MUST BE COORDINATED BY THE CONTRACTOR.

2 TYP. MEP INSTALLATION DETAIL

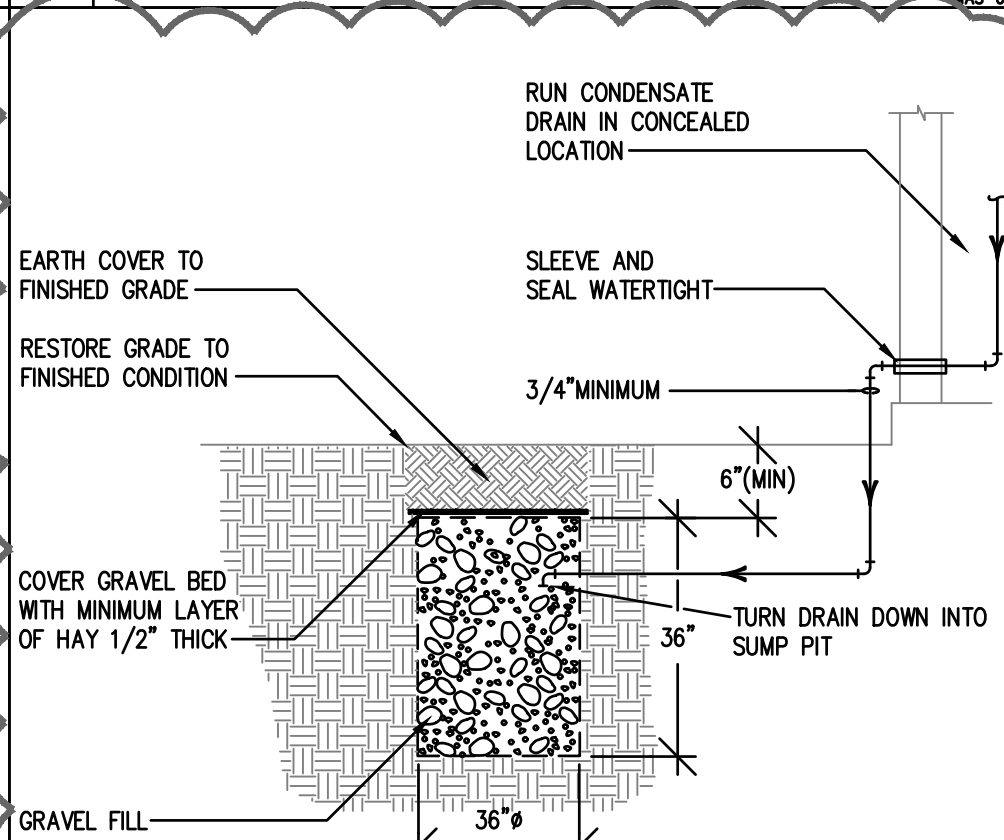
NOT TO SCALE



- NOTES:
- THIS CONNECTION SHALL BE TYPICAL FOR ALL RECTANGULAR BRANCH DUCT CONNECTIONS TO RECTANGULAR TRUNK DUCTS, INCLUDING SUPPLY, RETURN, OUTSIDE AIR AND EXHAUST DUCTS.

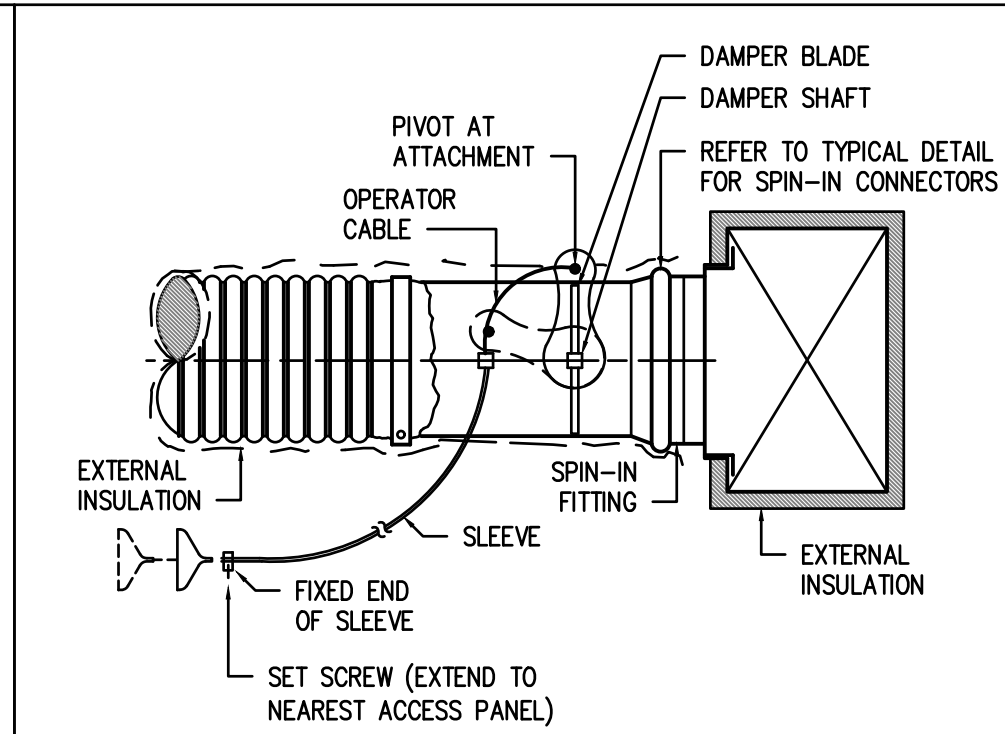
5 RECTANGULAR BRANCH DUCT TAP

NOT TO SCALE



8 FRENCH DRAIN

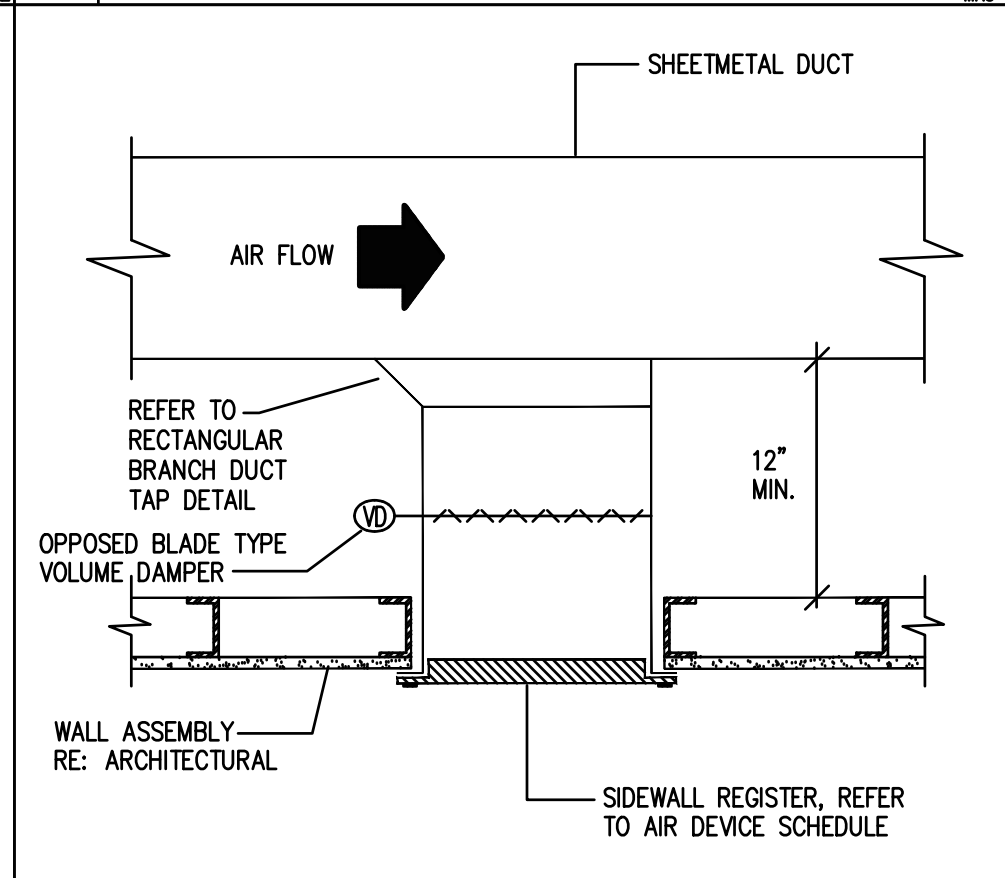
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- NOTES:
- MOUNT OPERATOR CRANK AND CABLE PLATFORM ON TOP OF EXTERNAL INSULATION AT DAMPER.

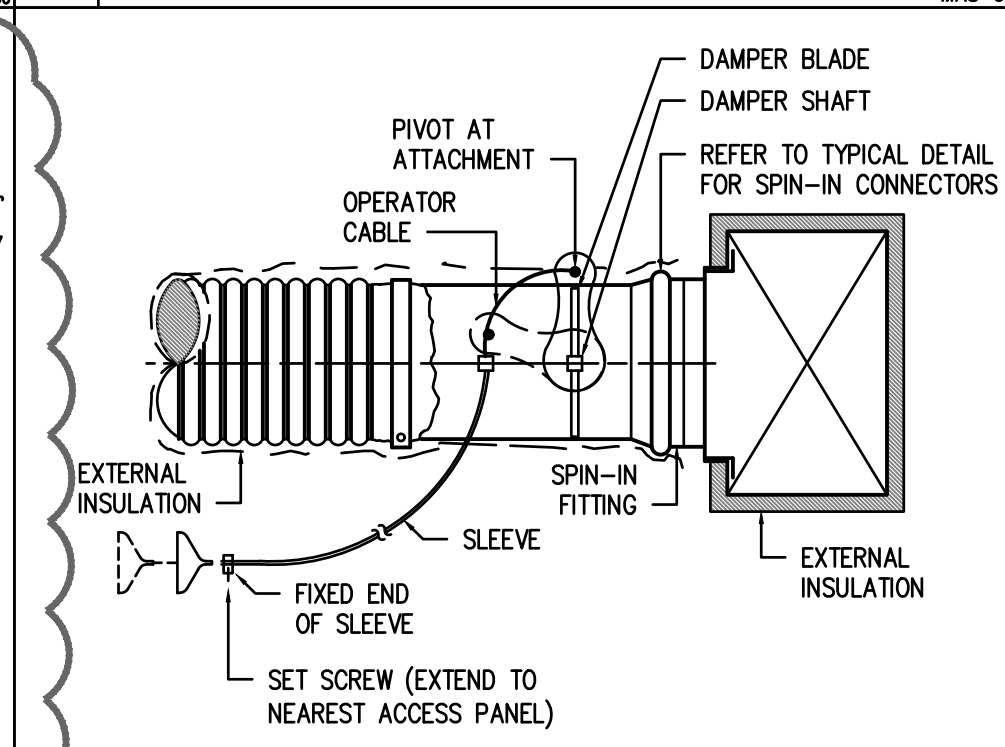
9 REMOTE SPIN-IN DAMPER OPERATOR

NOT TO SCALE



6 SIDEWALL SUPPLY REGISTER DETAIL

NOT TO SCALE



- NOTES:
- MOUNT OPERATOR CRANK AND CABLE PLATFORM ON TOP OF EXTERNAL INSULATION AT DAMPER.

9 REMOTE SPIN-IN DAMPER OPERATOR

NOT TO SCALE



DBR Project Number		228023.000		
RT	JS	JR	TL	---

GYMNASIUM ADDITIONS / IMPROVEMENTS
FOR CANTERBURY & ESCANDON ELEMENTARY SCHOOLS
TEXAS
EDINBURG

JOB NO.
FILE NO. DWG/

M5.01 SHEET
OF

EGV ARCHITECTS, INC.
220 S. BRIDGE STREET
PO BOX 8827
HIDALGO, TX 78557
TEL: (956) 845-2987
FAX: (956) 843-9726

ARCHITECTS, INC.

STATE OF TEXAS
ROBERTO H. TIJERINA
121946
LICENSED PROFESSIONAL ENGINEER
11/07/2022

DATE	DESIGNED	DRAWN	CHECKED	SCALE

NO.	REVISIONS	DATE
1	Addendum #1	11/04/2022

ABBREVIATIONS

A	
ABV	AIR (COMPRESSED)
A/C	ABOVE
AC	AIR CONDITIONING
ACCH	ALTERNATING CURRENT, AIR COMPRESSOR
ACCU	AIR COOLED CHILLER
AD	AIR COOLED CONDENSING UNIT
ADJ	ACCESS DOOR, AREA DRAIN
AF	ADJUSTABLE
AFC	AIR FILTER
AFF	ABOVE FINISHED CEILING
AFG	ABOVE FINISHED FLOOR
AHRI	ABOVE FINISHED GRADE
AHU	AIR-CONDITIONING, HEATING, AND REFRIGERATION INSTITUTE
AL	AIR HANDLING UNIT
AMB	ALUMINUM
AP	AMBIENT
APD	ACCESS PANEL
ARCH	AIR PRESSURE DROP
AS	ARCHITECT, ARCHITECTURAL
ASHRAE	AIR SEPARATOR
	AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY OF TESTING AND MATERIALS
AV	ACID VENT, AIR VENT
AVG	AVERAGE
AW	ACID WASTE
AWS	AMERICAN WELDING SOCIETY
AUX	AUXILIARY

B	
B	BOILER
BC	BELOW COUNTER
B/C	BACK OF CURB
BFF	BELOW FINISHED FLOOR
BFV	BUTTERFLY VALVE
BH	BOX HYDRANT
BLDG	BUILDING
BM	BENCHMARK
BOF	BOTTOM OF FOOTING
BOS	BOTTOM OF STRUCTURE
BP	BACKFLOW PREVENTER
BTU	BRITISH THERMAL UNIT
BV	BALL VALVE
BWV	BACK WATER VALVE

C	
C	CELSIUS
CAB	CABINET
CB	CATCH BASIN
CD	CONDENSATE DRAIN LINE
CFM	CUBIC FEET PER MINUTE
CFS	CUBIC FEET PER SECOND
CH	CHILLER
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CHW	CHILLED WATER
CHWP	CHILLED WATER PUMP
CI	CAST IRON
CIRC	CIRCULATING
CL	CENTERLINE
CLG	CEILING
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
COMB	COMBINATION
COMP	COMPRESSOR
CONC	CONCRETE, CONCENTRIC
COND	CONDENSER, CONDENSATE
CONN	CONNECTION
CONT	CONTINUOUS, CONTINUATION
CTR	CENTER
CU	COPPER

D	
D	DEPTH, DRAIN, DRYER
DB	DRY BULB
DC	DIRECT CURRENT
DDC	DIRECT DIGITAL CONTROL
DDMB	DUAL DUCT MIXING BOX
DESIG	DESIGNATION
DTL	DETAIL
DIA	DIAMETER
DIFF	DIFFUSER
DIM	DIMENSION
DISC	DISCONNECT
DN	DOWN
DPR	DAMPER
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWP	DOMESTIC WATER PUMP
DX	DIRECT EXPANSION

E	
EA	EACH
EAT	ENTERING AIR TEMPERATURE
ECC	ELECTRICAL CONTRACTOR
EDB	ECCENTRIC
EDH	ENTERING DRY BULB
EF	ELECTRIC DUCT HEATER
EFF	EXHAUST FAN
EF	EFFICIENCY
EJ	EXPANSION JOINT
EL	ELEVATION
ELEC	ELECTRICAL
EMERG	EMERGENCY
ENCL	ENCLOSURE
ENGR	ENGINEER
EQ	EQUAL
EQUIP	EQUIPMENT
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
ETR	EXISTING TO REMAIN
EVAP	EVAPORATOR
EWB	ENTERING WET BULB
EW	ENTERING WATER TEMPERATURE
EXT	EXPLOSION PROOF
EXT	EXTERNAL
EXTG	EXISTING

F	
F	FAHRENHEIT, FIRE
FBO	FURNISHED BY OTHERS
FCO	AIR PRESSURE DROP
FCS	FLOOR CLEAN OUT
FCU	FLOOR CONTROL STATION
FD	FAN COIL UNIT
FDC	FLOOR DRAIN, FIRE DAMPER
FDV	FIRE DEPARTMENT SIAMSE CONNECTION
FDV	FIRE DEPARTMENT VALVE
FDV	FIRE HYDRANT
FHC	FIRE HOSE CABINET
FHR	FIRE HOSE RACK
FLA	FULL LOAD AMPS
FLX	FLEXIBLE
FLR	FLOOR
FPTU	FAN POWERED TERMINAL UNIT
FT	FOOT, FEET
FUT	FUTURE

G	
G	GAS
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GC	GENERAL CONTRACTOR
GLV	GLOBE VALVE
GND	GROUND
GPM	GALLONS PER MINUTE
GV	GATE VALVE

H	
HORIZ	HORIZONTAL
HP	HORSEPOWER
HSTAT	HUMIDISTAT
HT	HEIGHT
HTG	HEATING
HTR	HEATER
HW	HOT WATER
HWP	HEATING WATER PUMP
HWR	HOT WATER RETURN
HWS	HOT WATER SUPPLY
HX	HEAT EXCHANGER
HZ	HERTZ

I	
ID	INSIDE DIAMETER
IE	INVERT ELEVATION
IH	INFRARED HEATER
IN	INCH
INSUL	INSULATION
INT	INTERNAL, INTERIOR
INV	INVERT
IW	INDIRECT WASTE

J	
JB	JUNCTION BOX
JP	JOCKEY PUMP

K	
KEC	KITCHEN EQUIPMENT CONTRACTOR
KO	KNOCKOUT
KVA	KILOVOLT-AMPS
KW	KILOWATT

L	
L	LENGTH
LAT	LEAVING AIR TEMPERATURE
LAV	LAVATORY
LF	LINEAR FEET
LP	LOW PRESSURE
LRA	LOCKED ROTOR AMPS
LVL	LEVEL
LWB	LEAVING WET BULB
LWCO	LOW WATER CUT OFF
LWT	LEAVING WATER TEMPERATURE

M	
MAT	MIXED AIR TEMPERATURE
MAX	MAXIMUM
MBTUH	THOUSAND OF BTU'S
MC	MECHANICAL CONTRACTOR
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MI	MALLEABLE IRON
MIN	MINIMUM
MP	MEDIUM PRESSURE
MS	MOP SINK
MTD	MOUNTED
MU	MAKE-UP
MVD	MANUAL VOLUME DAMPER
MSAH	MINI-SPLIT AIR HANDLER
MSCU	MINI-SPLIT CONDENSING UNIT

N	
N.C.	NORMALLY CLOSED
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
NO.	NUMBER
NTS	NOT TO SCALE

O	
OA	OUTSIDE AIR
OAF	OUTSIDE AIR FAN
OAHU	OUTSIDE AIR HANDLING UNIT
OBD	OPPOSED BLADE DAMPER
OC	ON CENTER
OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
OFU	OUTSIDE AIR FAN COIL UNIT
OPG	OPENING
OS&Y	OPEN STEM AND YOLK

P	
PG	PRESSURE GAUGE
PP	POLYPROPYLENE
PPM	PART PER MILLION
PRI	PRIMARY
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PSIG	POUNDS PER SQUARE INCH GAUGE
PV	PLUG VALVE
PVC	POLYVINYL CHLORIDE

Q	
QTY	QUANTITY

R	
RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RAF	RETURN AIR FAN
RAG	RETURN AIR GRILLE
RAT	RETURN AIR TEMPERATURE
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
RE	REFERENCE, REFER
RED	REDUCER
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCING
REOD	REQUIRED
REV	REVISION, REVISE
RH	RELATIVE HUMIDITY
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID
RLA	RUNNING LOAD AMPS
RM	ROOM
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION
RTU	ROOFTOP UNIT
RV	RELIEF VALVE

S	
SA	SUPPLY AIR
SAF	SUPPLY AIR FAN
SAG	SUPPLY AIR GRILLE
SAN	SANITARY SEWER
SAR	SUPPLY AIR REGISTER
SC	STEAM CONDENSATE
SCHED	SCHEDULED
SD	STORM DRAIN
SEC	SECONDARY
SECT	SECTION
SENS	SENSIBLE
SF	SQUARE FEET
SFCS	SPRINKLER FLOOR CONTROL STATION
SH	SHOWER
SHT	SHEET
SIM	SIMILAR
SK	SINK
SM	SHEETMETAL
SP	STATIC PRESSURE, SUMP PUMP
SPEC	SPECIFICATION
SPR	SPRINKLER
SQ	SQUARE
SS	SERVICE SINK
SSSC	SOLID STATE SPEED CONTROL
STD	STANDARD
STL	STEEL
STR	STRAINER
SURF	SURFACE
SUSP	SUSPEND
SV	SANITARY VENT
SW	SOFT WATER

T	
TC	TEMPERATURE CONTROL
TCC	TEMPERATURE CORNEAL COMPRESSOR
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TF	TRANSFER FAN
TH	THRUST BLOCK
TH BLK	THERMOMETER
THERM	THERMOSTATIC MIXING VALVE
TMV	TRAP PRIMER
TP	TRAP PRIMER DEVICE
TPD	TOTAL STATIC PRESSURE
TSP	THERMOSTAT
TSTAT	TEMPERED HOT WATER
TW	TYPICAL

U	
U	URINAL
UCD	UNDER CUT DOOR
UG	UNDERGROUND
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORIES, INC
UNO	UNLESS NOTED OTHERWISE
U/F	UNDERFLOOR
U/S	UNDERSLAB

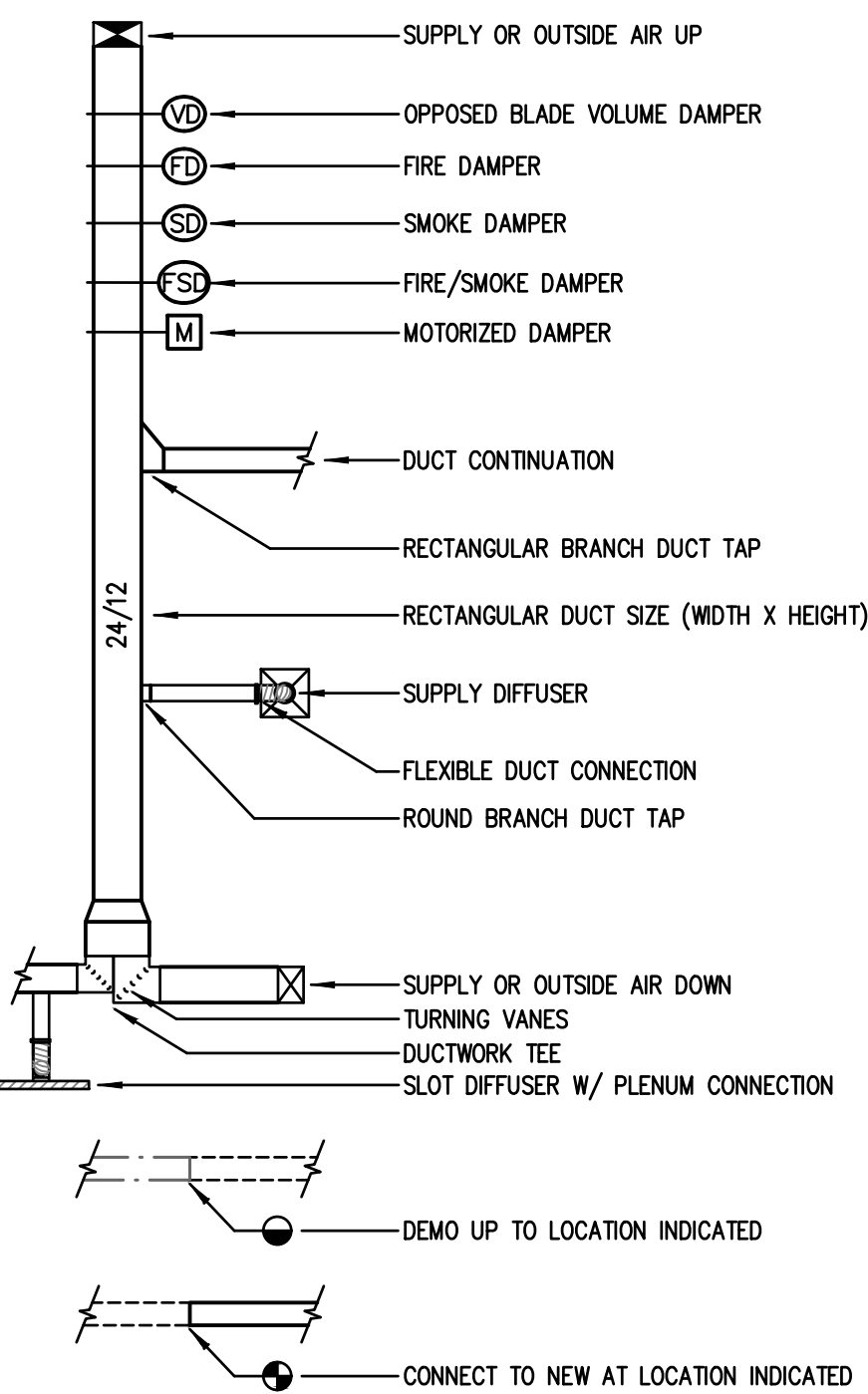
V	
V	VOLT
VA	VOLT- AMPERE
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
VB	VALVE BOX, VACUUM BREAKER
VD	VOLUME DAMPER
VEL	VELOCITY
VERT	VERTICAL
VED	VARIABLE FREQUENCY DRIVE
VIB	VALVE IN BOX
VOV	VALVE ON VERTICAL
VP	VACUUM PUMP
VR	VARIABLE AIR VOLUME REHEAT
VTR	VENT THRU ROOF

W	
W	WATT, WIDTH
W/O	WITHOUT
WB	WET BULB
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WM	WATER METER
WP	WEATHERPROOF
WPD	WATER PRESSURE DROP
WWF	WELDED WIRE FABRIC

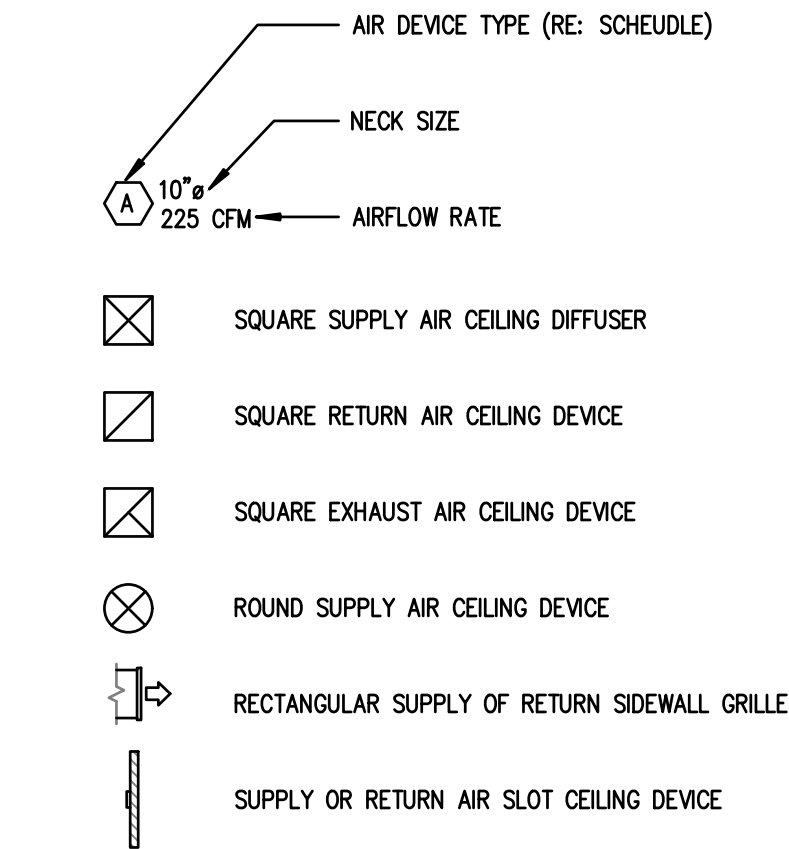
Y	
Y	YARD HYDRANT

Z	
Z	ZONE

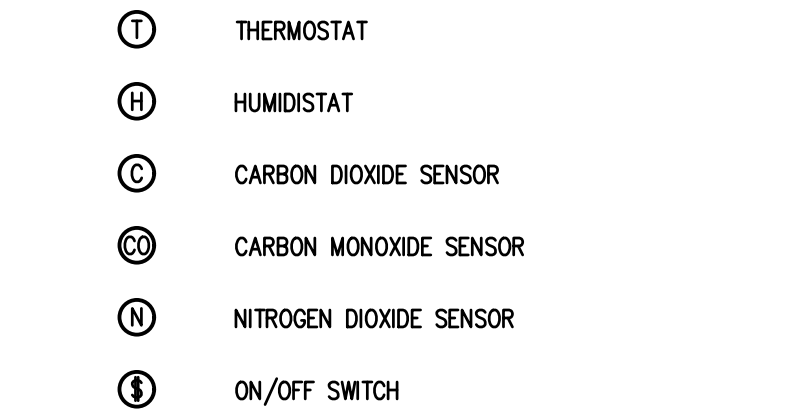
DUCTWORK



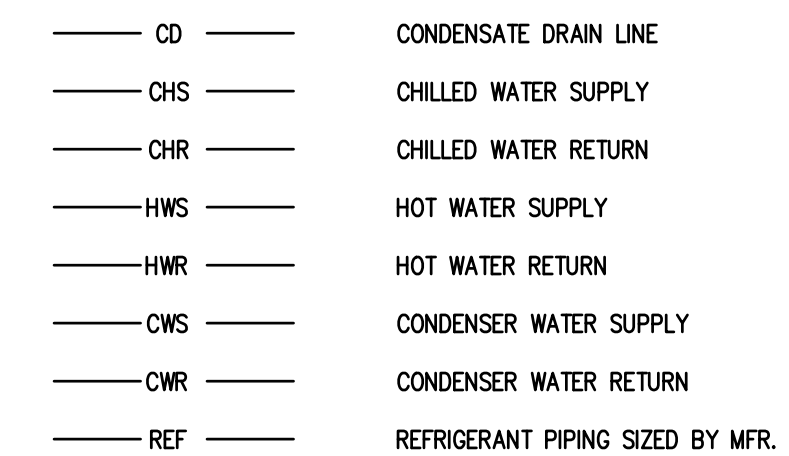
AIR DEVICE TYPES



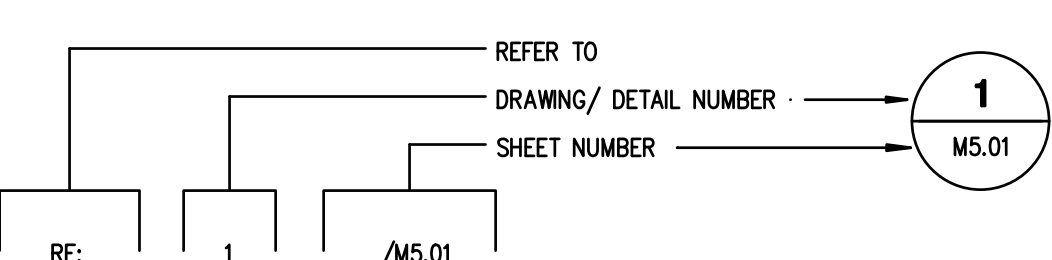
WALL MOUNTED SENSOR TYPES



PIPING TYPES



DRAWING/DETAIL REFERENCE KEY



MECHANICAL GENERAL NOTES

1. PIPING AND DUCTWORK SHOWN ON PLANS ARE SCHEMATIC ONLY. COORDINATE WITH OTHER TRADES FOR PIPING AND DUCTWORK ROUTING, OFFSET AND RUN. PIPING DUCTWORK INSIDE THE STRUCTURE IF REQUIRED. PROVIDE ALL NECESSARY PIPING, DUCTWORK, FITTING, INSULATION, AND OTHER ACCESSORIES IN ORDER TO COMPLETE THE INSTALLATIONS.
2. EQUIPMENT SIZES, DIMENSIONS, AND REQUIRED CONNECTIONS SHALL BE VERIFIED WITH THE MANUFACTURER DRAWINGS AND CUTSHEETS BEFORE FABRICATING OF DUCTWORK, PIPING, OR POURING OF CONCRETE HOUSEKEEPING PADS.
3. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR ALL ELECTRICAL POWER REQUIREMENTS.
4. DUCT SIZES SHOWN ON PLANS ARE CLEAR INSIDE DIMENSIONS.
5. PROVIDE RECTANGULAR BRANCH DUCT TAP FOR ALL RECTANGULAR DUCT CONNECTIONS TO RECTANGULAR DUCT TRUNKS.
6. ALL MEDIUM AND LOW PRESSURE DUCTWORK AND ASSOCIATED ACCESSORIES SHALL BE CONSTRUCTED TO MEET THE LATEST SMACNA STANDARDS FOR MEDIUM AND LOW PRESSURE DUCTWORK.
7. ALL OUTSIDE AIR, SUPPLY AIR, AND RETURN AIR DUCTWORK AND PLENUMS SHALL BE INSULATED WITH A MINIMUM OF R-6 INSULATION WHERE LOCATED IN UNCONDITIONED SPACES AND SHALL BE INSULATED WITH A MINIMUM OF R-8 INSULATION WHERE LOCATED OUTSIDE THE BUILDING. REFER TO SPECIFICATION 23 07 13 DUCT INSULATION FOR FURTHER INFORMATION AND ADDITIONAL REQUIREMENTS.
8. ALL DUCTWORK SHALL BE CONSTRUCTED TO SEAL CLASS 'A' AS REFERENCED IN SMACNA STANDARDS. ALL NON-WELDED JOINTS AND SEAMS SHALL BE SEALED. THIS INCLUDES BUT IS NOT LIMITED TO TRANSVERSE JOINTS, LONGITUDINAL SEAMS, DUCT WALL PENETRATIONS, SPIN-INS, TAPS, AND OTHER BRANCH CONNECTIONS, ACCESS DOORS, ACCESS PANELS, AND DUCT CONNECTIONS TO EQUIPMENT. OPENINGS FOR ROTATING SHAFTS SHALL ALSO BE SEALED WITH BUSHINGS. REFER TO SPECIFICATION 23 31 13 METAL DUCTWORK FOR FURTHER INFORMATION.
9. ALL EXPOSED DUCTWORK AND PIPING WITH ASSOCIATED ACCESSORIES IN AREAS WITH NO CEILING OR PARTIAL CEILING SHALL BE PAINTED. REFER TO ARCHITECT FOR COLOR.
10. DIVISION 23 MECHANICAL CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR PRIOR TO ACTUAL INSTALLATION OF TEMPERATURE SENSORS AND HUMIDITY SENSORS.
11. PROVIDE REMOTE SPIN-IN DAMPER OPERATOR FOR SPIN-IN CONNECTIONS AND VOLUME DAMPERS LOCATED OVER GYPSUM CEILINGS.
12. PROVIDE AIRFLOW TYPE TURNING VANES IN ALL 90 DEGREE ELBOWS.
13. PROVIDE INSULATED ACCESS DOORS FOR DUCTWORK DOWNSTREAM OF AIR HANDLING UNITS AT EVERY 20'-0" TO FACILITATE DUCT CLEANING. PROVIDE ACCESS DOORS WITHIN 5'-0" OF EACH ELBOW.
14. COORDINATE LOCATIONS OF FLOOR AND WALL OPENINGS WITH ARCHITECT AND STRUCTURAL ENGINEER.
15. ALL CEILING MOUNTED AND WALL MOUNTED AIR DEVICE FINISHES SHALL MATCH ADJACENT ARCHITECTURAL SURFACE. CONTRACTOR SHALL COORDINATE COLOR WITH ARCHITECT.
16. NO PIPE HANGERS SHALL BE SPACED MORE THAN 10'-0" O.C. COMPLY WITH PIPE SPACING AS SPECIFIED IN THE PIPING SUPPORT SPECIFICATIONS.
17. MECHANICAL CONTRACTOR SHALL COORDINATE EXACT LOCATIONS OF ALL OUTSIDE AIR INTAKES TO MAINTAIN 15 FEET DISTANCE BETWEEN OUTSIDE AIR INTAKES AND ANY EXHAUST AIR OUTLET, FLUES OR PLUMBING VENTS.
18. MECHANICAL CONTRACTOR SHALL COORDINATE WITH PLUMBING CONTRACTOR FOR ALL CONDENSATE DRAIN PIPES CONNECTING TO A SINK DRAIN TAIL PIECE.

CONTROLS SCHEMATIC SYMBOLS LEGEND

AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI/BI	DIGITAL/BINARY INPUT
DO/BO	DIGITAL/BINARY OUTPUT
MD	ON-OFF MOTORIZED DAMPER
MMD	MODULATING TYPE MOTORIZED DAMPER
AFMS	AIR FLOW MEASURING STATION
MCV	CONTROL VALVE MODULATING TYPE
VFD	VARIABLE FREQUENCY DRIVE
CSR	CURRENT SENSING RELAY
FRZ	FREEZESTAT
HSL	HIGH STATIC LIMIT
SPT	STATIC PRESSURE TRANSMITTER
DPT	DIFFERENTIAL PRESSURE TRANSDUCER
FM	FLOW METER
FS	FLOW SWITCH
DAT	DISCHARGE AIR TEMPERATURE SENSOR
S	WALL SENSOR
T	THERMOSTAT
CO2	CARBON DIOXIDE SENSOR
SP	SET POINT
S/A	SUPPLY AIR
R/A	RETURN AIR
O/A	OUTSIDE AIR
HC	HEATING COIL
CC	COOLING COIL
DX	DIRECT EXPANSION COOLING COIL
PICCV	PRESSURE INDEPENDENT CHARACTERIZED CONTROL VALVE
AFC	AIRFLOW CROSS
DPS	DIFFERENTIAL PRESSURE SWITCH



DBR Project Number 228023.000

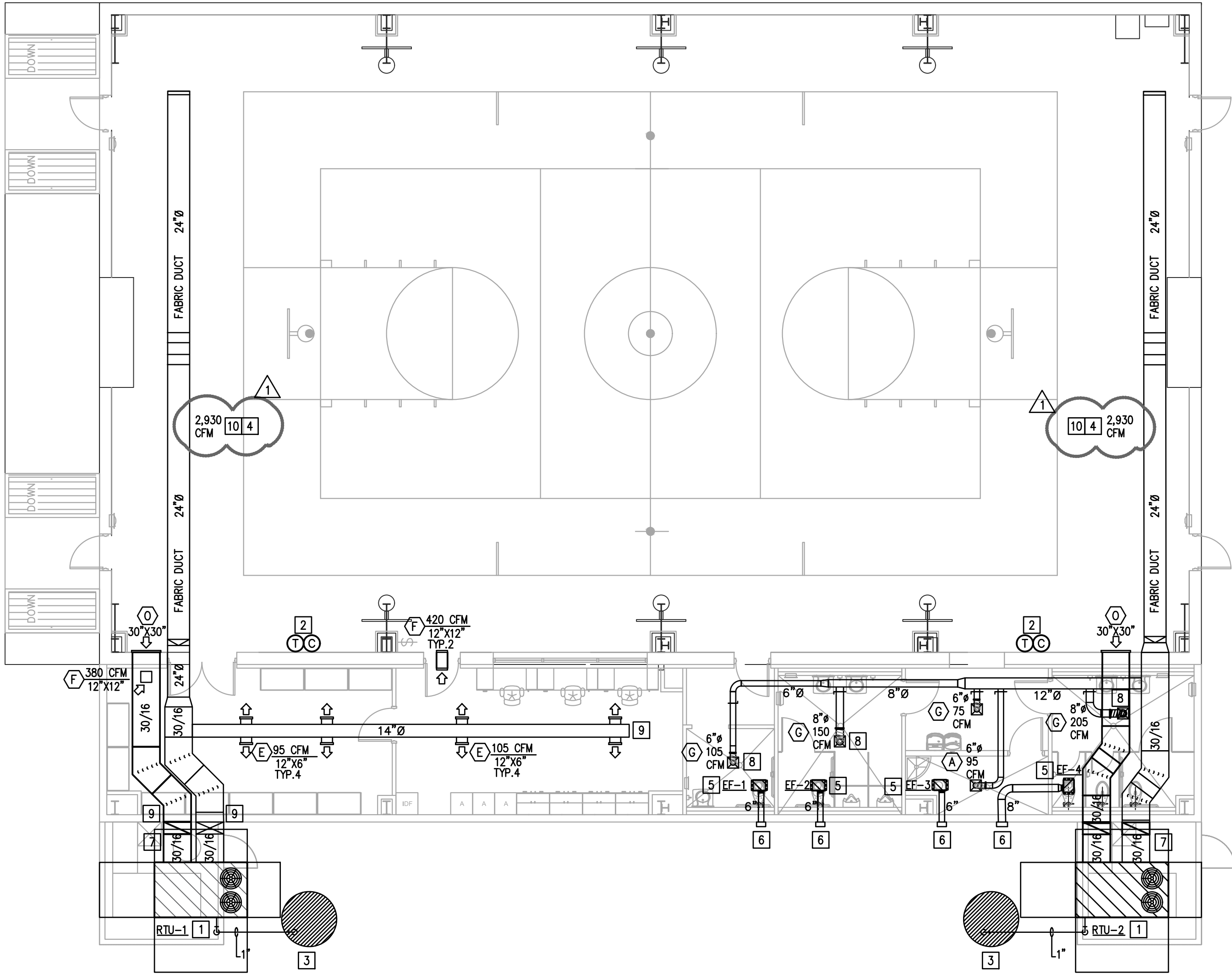
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11/07/2022

GYMNASIUM ADDITIONS / IMPROVEMENTS
FOR CANTERBURY & ESCANDON ELEMENTARY SCHOOLS
EDINBURG
TEXAS

JOB NO.
FILE NO. DWG/
M0.01 SHEET
OF



1 COMPOSITE LEVEL 1 MECHANICAL PLAN
M1.11 1/8" = 1'-0"

MECHANICAL GENERAL NOTES:

- A. THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE THE GENERAL LOCATION OF EXISTING EQUIPMENT, DUCTS, AND GRILLES, ETC. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS THAT UPON PROJECT COMPLETION, THE EXISTING MECHANICAL SYSTEMS, CONDUIT, DUCTWORK, ETC., BE READY FOR OPERATION WHETHER OR NOT EVERY ITEM OF EQUIPMENT, ACCESSORY, DEVICE, ETC. IS SHOWN. REFERENCE SHALL BE MADE TO THE FULL DRAWING PACKAGE INCLUDING ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR COORDINATION AND POTENTIAL CONFLICTS. THE MECHANICAL SUBCONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE REASONABLE MODIFICATIONS IN THE LAYOUT AS NEEDED TO PREVENT CONFLICTS WITH OTHER TRADES, OR FOR PROPER EXECUTION OF THE WORK. FIELD VERIFY ALL DIMENSIONS BEFORE FABRICATING DUCTWORK.
- B. WORK SHALL BE DONE SO AS TO MINIMIZE DISRUPTION TO BUILDING ACTIVITIES. KEEP BUILDING SERVICES IN FULL OPERATION DURING NORMAL BUSINESS HOURS.
- C. SCHEDULING SHALL BE CLOSELY COORDINATED WITH THE OWNER AND NO WORK SHALL PROCEED WITHOUT AN OWNER-APPROVED SCHEDULE. SCHEDULE ALL SHUTDOWNS AT LEAST 48 HOURS IN ADVANCE WITH OWNER IN WRITING. REFER TO SPECIFICATIONS FOR AREAS REQUIRING SPECIAL ACCESS, SCHEDULING, AND/OR SECURITY.
- D. PROTECTION OF BUILDING PERSONNEL, FURNISHINGS AND SYSTEMS FROM HAZARD AND/OR CONTAMINATION ASSOCIATED WITH DEMOLITION AND CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR IN ACCORDANCE WITH THE SPECIFICATIONS.
- E. CONTRACTOR SHALL COORDINATE REMOVAL AND OFF-SITE DISPOSAL OF EXISTING MATERIALS AND ROUTING OF ANY NEW PIPING, CONDUIT, DUCTWORK AT THE JOB SITE TO AVOID DAMAGE OR CONFLICT WITH EXISTING SYSTEMS AND STRUCTURE. OBTAIN APPROVAL OF OWNER'S REPRESENTATIVE BEFORE DISPOSING OF ITEMS. ITEMS TO KEEP SHALL BE DELIVERED TO THE OWNER.
- F. ANY EXISTING CLOCKS IN HALLWAYS SUSPENDED FROM CEILING, TO BE CAREFULLY DISCONNECTED AND STORED DURING CONSTRUCTION. CLOCKS SHALL BE RE-INSTALLED IN PREVIOUS LOCATION WHEN CONSTRUCTION IS COMPLETE. CONTRACTOR SHALL VERIFY THAT CLOCK SYSTEM IS WORKING PROPERLY WHEN INSTALLATION IS COMPLETE.
- G. CONTRACTOR SHALL COORDINATE WITH OTHER TRADES. CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE GENERAL CONTRACTOR AND, AS NECESSARY, THE OWNER.
- H. CONTRACTOR SHALL COORDINATE ROUTING OF ANY NEW PIPING OR DUCTWORK AT THE JOB SITE TO AVOID CONFLICT WITH EXISTING SYSTEMS, STRUCTURE, LIGHT FIXTURES AND PLUMBING LINES.
- I. COMPLETION: UPON COMPLETION OF THE WORK, AND PRIOR TO ACCEPTANCE, THE CONTRACTOR SHALL FURNISH TO THE OWNER IN THE FORM AND QUANTITIES REQUIRED BY THE SPECIFICATIONS: OWNER'S MANUAL AND PROJECT RECORD DRAWINGS.
- J. NEW HVAC DUCTWORK, UNLESS NOTED OTHERWISE, TO BE GALVANIZED SHEET METAL SIZED, CONSTRUCTED, AND INSTALLED IN ACCORDANCE WITH THE SMACNA RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. SIZES SHOWN ON PLANS ARE IN METAL DIMENSIONS. ROUTE DUCTWORK SO AS TO MINIMIZE OFFSETS. FIELD VERIFY ROUTING ABOVE EXISTING CEILING. SEAL ALL DUCT SEAMS AIR TIGHT; MAXIMUM AIR LEAKAGE RATE = 5%.
- K. CONTRACTOR SHALL PROTECT EXISTING SECURITY CAMERAS DURING CONSTRUCTION AND SHALL CONFIRM CAMERAS ARE OPERATIONAL UPON CONSTRUCTION COMPLETION.
- L. SMOKE DETECTORS SHALL REMAIN OPERATIONAL DURING CONSTRUCTION. COVER ALL SMOKE DETECTORS FOR PROTECTION.
- M. PACKAGED AIR HANDLER UNIT DIMENSIONS AND CLEARANCES SHOWN SHALL BE IN REFERENCE TO SPECIFIC UNIT SCHEDULED. UNIT DIMENSIONS AND CLEARANCES MAY VARY DURING MAKE/MODEL OF UNIT. COORDINATE WITH ARCHITECT PRIOR TO PURCHASING EQUIPMENT TO VERIFY FINAL DIMENSIONS AND CLEARANCES FIT WITHIN FENCED AREA.
- N. FABRIC AIR DUCT AIR DISTRIBUTION PROVIDED SHALL BE DESIGNED BY THE MANUFACTURER TO MAXIMIZE THROW AND COVERAGE OF SUPPLY AIR ACROSS ENTIRE SPACE IN THE DIRECTION SHOWN ON PLANS.

MECHANICAL KEYED NOTES

- 1 PROVIDE NEW, GROUND-MOUNTED PACKAGED AIR HANDLER AS SHOWN ON PLANS. INSTALL UNIT PER MANUFACTURER'S INSTALLATION INSTRUCTIONS AND PROVIDE ALL RECOMMENDED CLEARANCES. SUPPLY AND RETURN DUCT SHALL BE ROUTED OUT FROM SIDE OF UNIT TO HIGHEST PENETRATION POINT WHILE REMAINING BELOW SLOPED ROOF STRUCTURE. COORDINATE EXACT PENETRATION POINT WITH FABRIC-AIR DUCT CONNECTION WITHIN BUILDING. DUCT SHALL PENETRATE EXTERIOR WALL AND IMMEDIATELY TRANSITION FOR CONNECTION TO FABRIC-AIR TYPE DUCTWORK SIZED AS SHOWN ON PLANS. PROVIDE CONCRETE PAD WITH 6" EXTENSIONS ON ALL SIDES FROM EDGE OF PACKAGED AIR HANDLER.
- 2 CONTROLS FOR HVAC SHALL BE BY A 24 VOLT 7-DAY PROGRAMMABLE THERMOSTAT WITH HEAT-OFF-COOL AND FAN ON-AUTO CAPABILITIES SHOWN ON DIGITAL DISPLAY. MOUNT THERMOSTAT AT 48" ABOVE FINISHED FLOOR. PROVIDE WITH KEYED CLEAR PLASTIC COVER.
- 3 PROVIDE DRY WELL AT APPROXIMATE LOCATION SHOWN. ROUTE 1" COPPER CONDENSATE LINE FROM RTU DOWN TO DRY WELL AS SHOWN ON PLANS. RE: MECHANICAL SCHEDULES.
- 4 DISPERSE CFM EVENLY ALONG ENTIRE LENGTH OF "VERONA" FABRIC DUCT. DIAMETER, QUANTITY, AND LOCATION OF REINFORCED ORIFICES TO BE SPECIFIED AND APPROVED BY MANUFACTURER. PROVIDE WITH "SKELECORE PULL-TIGHT" SYSTEM. AIR DIFFUSERS SHALL BE CONSTRUCTED WITH BOTH INTERNAL RETENTION AND EXTERNAL TENSIONING. MANUFACTURER MUST HAVE DOCUMENTED DESIGN SUPPORT INFORMATION INCLUDING DUCT SIZING, VENT, ORIFICE, AND/OR NOZZLE LOCATIONS. COLOR AND LOGO BY ARCHITECT.
- 5 CONTRACTOR SHALL INSTALL PROGRAMMABLE TIME CLOCK CONTROLLER EQUAL TO TORK #DG100A.
- 6 PROVIDED HOODED WALL CAP WITH ROUND CONNECTION. SEAL WALL PENETRATION VAPOR TIGHT.
- 7 OUTDOOR SUPPLY AND RETURN DUCTS SHALL BE PRE-INSULATED DUCT SYSTEMS EQUAL TO R-12 THERMADUCT. COORDINATE PACKAGED DX EQUIPMENT SUPPLY AND RETURN CONNECTIONS, HOUSEKEEPING PAD, CURBS, VIBRATION ISOLATION DEVICES, AND DUCTWORK PRIOR TO COMMENCEMENT OF WORK. EXTERIOR DUCTS SHALL RUN STRAIGHT FROM THE PACKAGED DX UNIT TO THE BUILDING AS SHOWN WITHOUT ANY OFFSET FITTINGS OR ELBOWS. SEAL WALL PENETRATION VAPOR TIGHT.
- 8 PROVIDE AND INSTALL CABLE OPERATED BALANCING DAMPER EQUAL TO ROTO-TWIST MODEL RT-150. EXTEND CABLE TO SUPPLY AIR DEVICE AND TERMINATE.
- 9 PROVIDE ESCUTCHEONS ON EXPOSED OUT WALL PENETRATIONS. BOTH EXPOSED ROUND DUCT AND RECTANGULAR DUCT SHALL BE DOUBLE WALL AND PAINT GRIP. EXPOSED INSULATION SHALL NOT BE ACCEPTABLE.
- 10 ROUTE AIR DUCTWORK ACROSS GYM AS SHOWN ON PLANS. FROM INITIAL TRANSITION POINT, DUCTWORK SHALL BE ROUTED AS HIGH AS POSSIBLE SLOPED TO MATCH ROOF PITCH, TOWARDS THE HIGHEST POINT OF STRUCTURE. FROM HIGHEST POINT, DUCTWORK SHALL THEN SLOPE TO MATCH ROOF PITCH, TERMINATING AT APPROXIMATE LOCATION SHOWN.

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DBR Firm Registration No. 2234

DBR Project Number	228023.000			
RT	JS	JR	TL	---

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OF

DATE:	NO.	REVISIONS	DATE APPROVED
DESIGNED:	1	Addendum #1	11/04/2022
DRAWN:			
CHECKED:			
SCALE:			

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11/07/2022

ADDENDUM #1, ATTACHMENT #4

FAN SCHEDULE				
MARK	EF-1	EF-2	EF-3	EF-4
SERVES	RESTROOM EXHAUST	RESTROOM EXHAUST	RESTROOM EXHAUST	RESTROOM EXHAUST
TYPE/DRIVE	CABINET/DIRECT	CABINET/DIRECT	CABINET/DIRECT	CABINET/DIRECT
CONTROL	TIME CLOCK	TIME CLOCK	TIME CLOCK	TIME CLOCK
CFM (MIN./MAX.)	125	225	125	225
EXT. S.P. (IN. W.G.)	0.375	0.375	0.375	0.375
HORSEPOWER	21 WATTS	36 WATTS	21 WATTS	36 WATTS
FAN SPEED (RPM)	1,066	1,148	1,066	1,148
SONES (MAX.)	3.0	3.5	3.0	3.5
VOLTS/PHASE/HERTZ	120/1/60	120/1/60	120/1/60	120/1/60
MANUFACTURER	GREENHECK	GREENHECK	GREENHECK	GREENHECK
MODEL NUMBER	SP-A390-VG	SP-A390-VG	SP-A390-VG	SP-A390-VG
NOTES	ALL	ALL	ALL	ALL

NOTES:

1. EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO FILTERS, HOUSING, NOR ACCESSORIES.
2. FAN SHALL BE SUSPENDED FROM STRUCTURE ABOVE. PROVIDE WITH VIBRATION ISOLATORS.
3. PROVIDE WITH DIRECT DRIVE, ELECTRONICALLY COMMUTATED FAN MOTOR (ECM).
4. FAN SHALL BE CONTROLLED THRU TIMECLOCK TO OPERATE DURING THE OCCUPIED PERIOD.
5. FAN SHALL BE PROVIDED WITH BACK DRAFT DAMPER.

PACKAGED DX ROOF TOP UNIT SCHEDULE		
MARK	RTU-1	RTU-2
DESIGN SUPPLY AIR (CFM)	3,730	3,560
MINIMUM SUPPLY AIR (CFM)	2,000	2,000
DESIGN OUTDOOR AIR (CFM)	1,420	1,370
MINIMUM OUTDOOR AIR (CFM)	1,420	1,000
IEER (SEER2)	14.6	14.6
EXT. S.P. (IN. W.G.)	1.00	1.00
FAN MOTOR HORSEPOWER	3.8	3.9
FAN TYPE	ECM	ECM
FAN DRIVE	DIRECT	DIRECT
COOLING DATA		
AMBIENT AIR (°F)	105.0	105.0
TOTAL COOLING CAPACITY (MBH)	131.2	130.4
TOTAL SENSIBLE CAPACITY (MBH)	99.1	97.1
EAT DB/WB (°F)	84.5/68.1	84.7/68.2
LAT DB/WB (°F)	58.6/56.5	58.1/56.0
HEATING DATA		
HEATING CFM	2,800	2,800
HEATING CAPACITY (KW)	30.0	30.0
EAT DB/WB (°F)	52.8	53.4
LAT DB/WB (°F)	36.4	37.0
ELECTRICAL DATA		
VOLTS/PHASE/HERTZ	460/3/60	460/3/60
MCA	51.0	51.0
MOCP	60.0	60.0
MANUFACTURER	LENNOX	LENNOX
MODEL NO.	LCT150H4E	LCT150H4E
OPERATING WEIGHT (LBS)	1,300	1,300
NOTES	ALL	ALL

NOTES:

1. EXTERNAL STATIC PRESSURE DOES NOT ACCOUNT FOR LOSSES DUE TO COIL(S), FILTERS, HOUSING, NOR ACCESSORIES.
2. PROVIDE UNIT WITH OUTDOOR AIR INTAKE HOOD WITH MODULATING MOTORIZED DAMPER.
3. PROVIDE UNIT WITH SINGLE POINT ELECTRICAL CONNECTION.
4. PROVIDE FLOAT SWITCH IN PRIMARY DRAIN PAN TO DE-ENERGIZE THE UNIT WHEN PRIMARY DRAIN LINE BECOMES RESTRICTED.
5. PROVIDE UNITS WITH MINIMUM MERV 13 FILTERS.
6. PROVIDE UNIT CONTROLLER BY MANUFACTURER. PROVIDE CONTROLLER WITH BACNET INTERFACE CARD FOR INTEGRATION WITH EMCS.
7. PROVIDE UNIT WITH HOT GAS REHEAT FOR HUMIDITY CONTROL.
8. PROVIDE UNIT WITH CONDENSER HAIL GUARD AND 14" PREFABRICATED ROOF CURB.
9. PROVIDE UNIT WITH COMPARATIVE ENTHALPY ECONOMIZER AND BAROMETRIC RELIEF.
10. PROVIDE UNIT WITH INTEGRAL DISCONNECT SWITCH AND POWERED CONVENIENCE OUTLET.
11. PROVIDE UNIT WITH DUCT MOUNTED SMOKE DETECTORS IN SUPPLY DUCTWORK FOR ALL UNITS DISCHARGING IN EXCESS OF 2,200 CFM.

AIR DEVICE SCHEDULE			
MARK	MFR. & MODEL	TYPE	REMARKS
	TITUS TMS-AA	LOUVERED FACE SUPPLY AIR DIFFUSER	24"x24" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR LAY-IN CEILING.
	TITUS 300FL	SIDEWALL SUPPLY AIR GRILLE	ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT. 3/4" BLADE SPACING, DOUBLE DEFLECTION WITH FRONT BLADES PARALLEL TO LONG DIMENSION. PROVIDE O.B.D.
	TITUS 350FL	SIDEWALL RETURN AIR GRILLE	ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT. 3/4" BLADE SPACING, 35° DEFLECTION WITH BLADES PARALLEL TO LONG DIMENSION. PROVIDE O.B.D. FOR DUCTED EXHAUST.
	TITUS TDC-AA	LOUVERED FACE SUPPLY AIR DIFFUSER	12"x12" FACE, ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT.
	TITUS 60FL	HEAVY DUTY RETURN AIR GRILLE	ALUMINUM CONSTRUCTION WITH FRAME FOR SURFACE MOUNT. 0° DEFLECTION WITH HORIZONTAL BLADES.
	TITUS 50F	EGGCRATE RETURN AIR GRILLE	ALUMINUM BORDER, 1"x1"x1" ALUMINUM CORE

NOTES:

1. REFER TO ARCHITECTURAL DRAWINGS FOR FINISH.
2. REFER TO MECHANICAL FLOOR PLAN FOR NECK SIZES.

