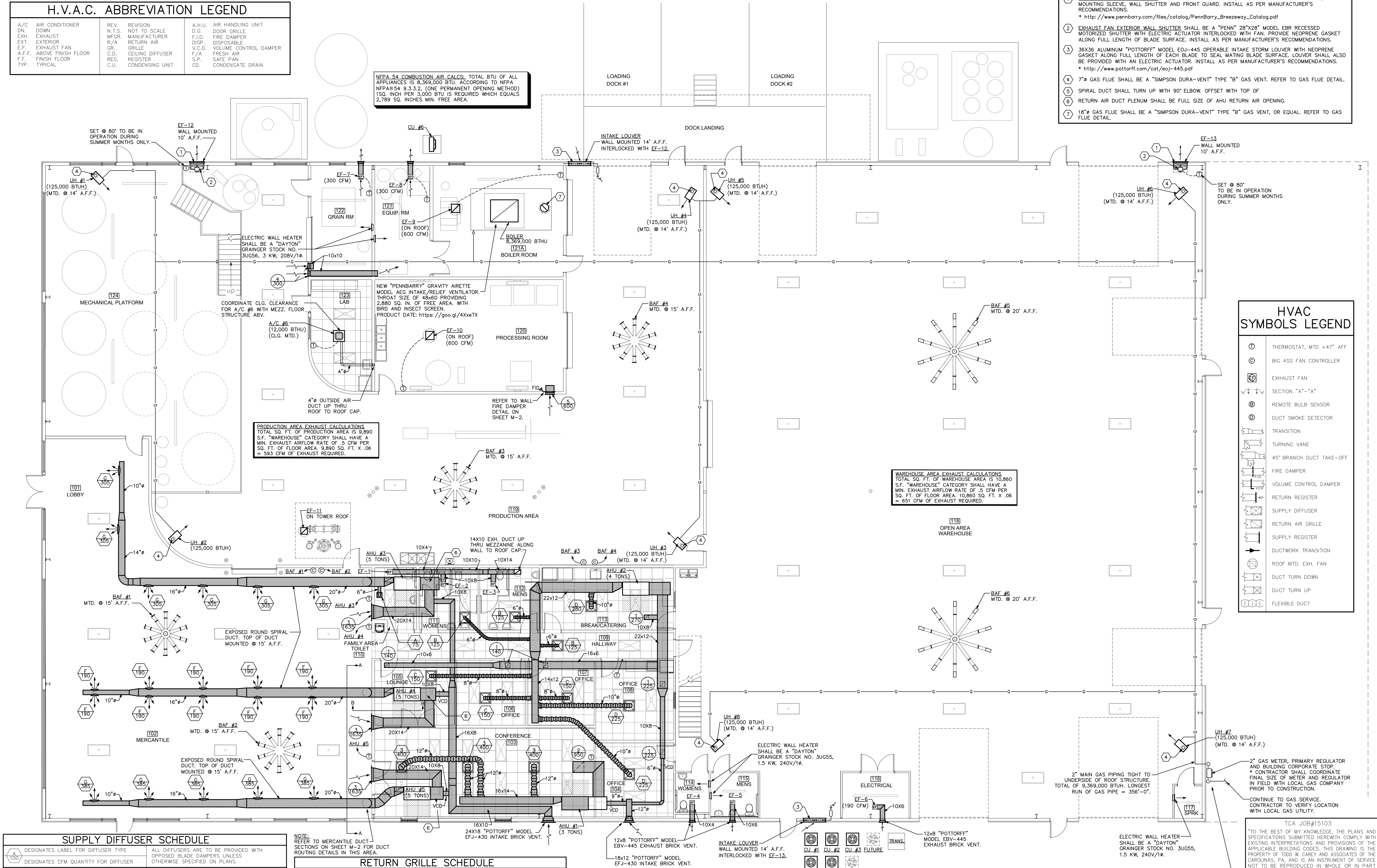


| H.V.A.C. ABBREVIATION LEGEND |                       |        |                  |
|------------------------------|-----------------------|--------|------------------|
| A/C                          | AIR CONDITIONER       | REV.   | REVISION         |
| DN.                          | DOWN                  | N.T.S. | NOT TO SCALE     |
| EXH.                         | EXHAUST               | MFR.   | MANUFACTURER     |
| EXT.                         | EXTERIOR              | R/A    | RETURN AIR       |
| EF                           | EXHAUST FAN           | GR.    | GRILLE           |
| A.F.F.                       | ABOVE FINISH FLOOR    | C.D.   | CEILING DIFFUSER |
| F.F.                         | FINISH FLOOR          | REG.   | REGISTER         |
| TYP.                         | TYPICAL               | C.U.   | CONDENSING UNIT  |
| A.H.U.                       | AIR HANDLING UNIT     | D.O.   | DOOR GRILLE      |
| F.I.D.                       | FIRE DAMPER           | DISP.  | DISPOSABLE       |
| V.C.D.                       | VOLUME CONTROL DAMPER | F/A    | FRESH AIR        |
| S.P.                         | SAFE PAN              | S.D.   | CONDENSATE DRAIN |

- ### SPECIFIC MECHANICAL NOTES
- WALL MOUNTED EXHAUST FAN, PROVIDE "PENN" REAR GUARD, WALL MOUNTING SLEEVE, WALL SHUTTER AND FRONT GUARD. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.  
\* [http://www.pennbarry.com/files/catalog/PennBarry\\_BreezeWay\\_Catalog.pdf](http://www.pennbarry.com/files/catalog/PennBarry_BreezeWay_Catalog.pdf)
  - EXHAUST FAN EXTERIOR WALL SHUTTER SHALL BE A "PENN" 28"x28" MODEL EBR RECESSED MOTORIZED SHUTTER WITH ELECTRIC ACTUATOR INTERLOCKED WITH FAN. PROVIDE NEOPRENE GASKET ALONG FULL LENGTH OF BLADE SURFACE. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.
  - 36x36 ALUMINUM "POTTERFF" MODEL EQJ-445 OPERABLE INTAKE STORM LOUVER WITH NEOPRENE GASKET ALONG FULL LENGTH OF EACH BLADE TO SEAL MATING BLADE SURFACE. LOUVER SHALL ALSO BE PROVIDED WITH AN ELECTRIC ACTUATOR. INSTALL AS PER MANUFACTURER'S RECOMMENDATIONS.  
\* <http://www.potterff.com/cat/eoj-445.pdf>
  - 7" GAS FLUE SHALL BE A "SIMPSON DURA-VENT" TYPE "B" GAS VENT. REFER TO GAS FLUE DETAIL.
  - SPIRAL DUCT SHALL TURN UP WITH 90° ELBOW, OFFSET WITH TOP OF
  - RETURN AIR DUCT PLENUM SHALL BE FULL SIZE OF AHU RETURN AIR OPENING.
  - 18" GAS FLUE SHALL BE A "SIMPSON DURA-VENT" TYPE "B" GAS VENT, OR EQUAL. REFER TO GAS FLUE DETAIL.

- ### HVAC SYMBOLS LEGEND
- ① THERMOSTAT, MTD +47" AFF
  - ⊙ BIG ASS FAN CONTROLLER
  - ⓔ EXHAUST FAN
  - SECTION "A"-"A"
  - Ⓢ REMOTE BULB SENSOR
  - Ⓣ DUCT SMOKE DETECTOR
  - TRANSITION
  - TURNING VANE
  - 45° BRANCH DUCT TAKE-OFF
  - FIRE DAMPER
  - VOLUME CONTROL DAMPER
  - RETURN REGISTER
  - SUPPLY DIFFUSER
  - RETURN AIR GRILLE
  - SUPPLY REGISTER
  - DUCTWORK TRANSITION
  - ROOF MTD. EXH. FAN
  - DUCT TURN DOWN
  - DUCT TURN UP
  - FLEXIBLE DUCT



| SUPPLY DIFFUSER SCHEDULE |                                      |                                                                                                  |           |                                |
|--------------------------|--------------------------------------|--------------------------------------------------------------------------------------------------|-----------|--------------------------------|
| ⓐ                        | DESIGNATES LABEL FOR DIFFUSER TYPE   | ALL DIFFUSERS ARE TO BE PROVIDED WITH OPPOSED BLADE DAMPERS UNLESS OTHERWISE SPECIFIED ON PLANS. |           |                                |
| ⓑ                        | DESIGNATES CFM QUANTITY FOR DIFFUSER |                                                                                                  |           |                                |
| LABEL                    | MANUFACTURER & MODEL NO.             | NECK SIZE                                                                                        | CFM RANGE | REMARKS                        |
| A                        | TITUS TDC-AA                         | 6"ø                                                                                              | 0 - 125   | 12X12 LOUVERED FACE            |
| B                        | TITUS TDC-AA                         | 6"ø                                                                                              | 0 - 125   | 24X24 LOUVERED FACE            |
| C                        | TITUS TDC-AA                         | 8"ø                                                                                              | 130 - 200 | 24X24 LOUVERED FACE            |
| D                        | TITUS TDC-AA                         | 10"ø                                                                                             | 205 - 325 | 24X24 LOUVERED FACE            |
| E                        | TITUS TDC-AA                         | 12"ø                                                                                             | 330 - 450 | 24X24 LOUVERED FACE            |
| F                        | TITUS S300FS                         | 14x6                                                                                             | 130 - 250 | DIRECT SPIRAL MOUNTED REGISTER |
| G                        | TITUS S300FS                         | 18x6                                                                                             | 255 - 400 | DIRECT SPIRAL MOUNTED REGISTER |

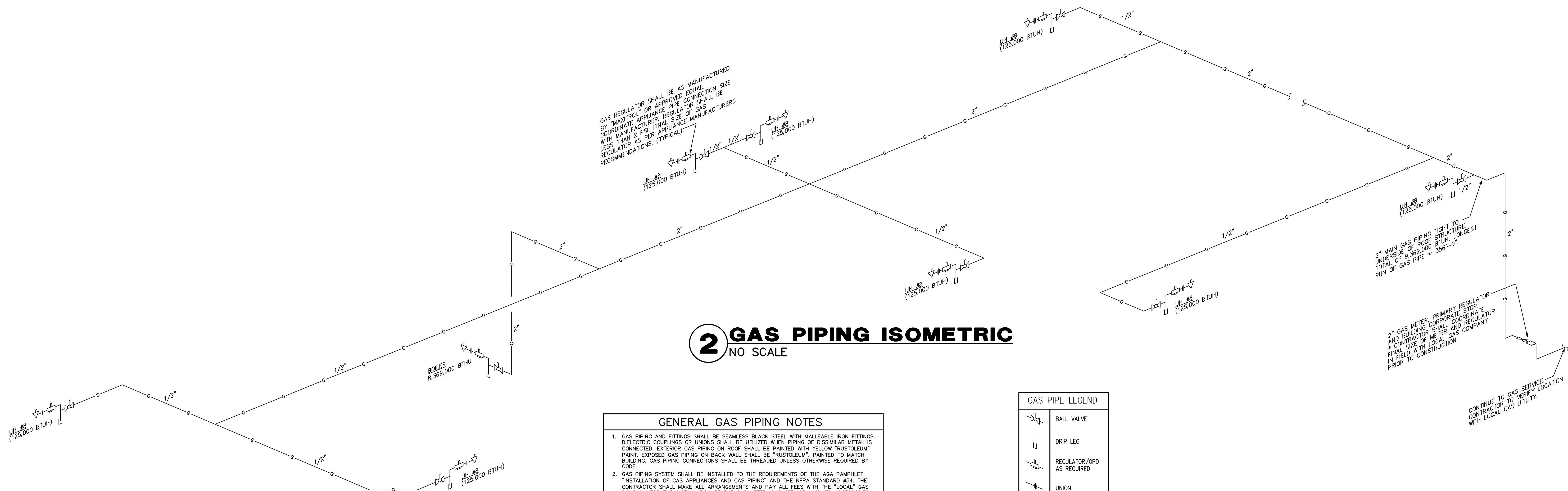
| RETURN GRILLE SCHEDULE |                                    |                                   |           |               |
|------------------------|------------------------------------|-----------------------------------|-----------|---------------|
| ⓐ                      | DESIGNATES LABEL FOR GRILLE TYPE   | FILTER SHALL BE PROVIDED AT UNIT. |           |               |
| ⓑ                      | DESIGNATES CFM QUANTITY FOR GRILLE |                                   |           |               |
| LABEL                  | MANUFACTURER & MODEL NO.           | NECK SIZE                         | CFM RANGE | REMARKS       |
| 1                      | TITUS 355FL                        | 10X10                             | 0 - 400   | LOUVER FACE   |
| 2                      | TITUS 355FL                        | 24X24                             | 0 - 2250  | LOUVER FACE   |
| 3                      | TITUS 50FF                         | 30X18                             | 0 - 2200  | EGGCRATE FACE |
| 4                      | TITUS 50FF                         | 10X10                             | 0 - 400   | EGGCRATE FACE |
| 5                      | TITUS 50FF                         | 12X12                             | 0 - 700   | EGGCRATE FACE |

**1 FLOOR PLAN - MECHANICAL**  
SCALE: 1/8"=1'-0"

NOTE:  
ALL NATURAL GAS PIPING IS SIZED BASED ON GAS PIPING WITH INITIAL PRESSURE OF 5 PSI. GAS PIPING IS SIZED AS PER 2012 NCGC TABLE 402.4(5).  
\* CONTRACTOR SHALL VERIFY FINAL GAS PRESSURES AND CONNECTIONS IN FIELD WITH LOCAL GAS COMPANY.

TCA JOB#15103  
"TO THE BEST OF MY KNOWLEDGE, THE PLANS AND SPECIFICATIONS SUBMITTED HERewith COMPLY WITH EXISTING INTERPRETATIONS AND PROVISIONS OF THE APPLICABLE BUILDING CODES. THIS DRAWING IS THE PROPERTY OF TODD W. CAREY AND ASSOCIATES OF THE CAROLINAS, PA, AND IS AN INSTRUMENT OF SERVICE NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME."

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## 2 GAS PIPING ISOMETRIC

NO SCALE

### GENERAL GAS PIPING NOTES

1. GAS PIPING AND FITTINGS SHALL BE SEAMLESS BLACK STEEL WITH MALLEABLE IRON FITTINGS. DIELECTRIC COUPLINGS OR UNIONS SHALL BE UTILIZED WHEN PIPING OF DISSIMILAR METAL IS CONNECTED. EXTERIOR GAS PIPING ON ROOF SHALL BE PAINTED WITH YELLOW "RUSTOLEUM" PAINT. EXPOSED GAS PIPING ON BACK WALL SHALL BE "RUSTOLEUM", PAINTED TO MATCH BUILDING. GAS PIPING CONNECTIONS SHALL BE THREADED UNLESS OTHERWISE REQUIRED BY CODE.
2. GAS PIPING SYSTEM SHALL BE INSTALLED TO THE REQUIREMENTS OF THE AGA PAMPHLET "INSTALLATION OF GAS APPLIANCES AND GAS PIPING" AND THE NFPA STANDARD #54. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS AND PAY ALL FEES WITH THE "LOCAL" GAS COMPANY FOR THE INSTALLATION OF THE GAS METER, GAS SERVICE, AND ITS ACCESSORIES NECESSARY FOR A COMPLETE SYSTEM.
3. GAS PIPING SHALL BE TESTED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN NFPA #54, AND ANY OTHER TESTS REQUIRED BY THE LOCAL BUILDING DEPARTMENT AND/OR THE LOCAL GAS UTILITY COMPANY.
4. THE INSTALLING SUBCONTRACTOR SHALL BE LICENSED BY THE STATE FOR THE INSTALLATION OF GAS PIPING.
5. RUNOUT PIPING, FROM THE MAIN PIPING TO APPLIANCES, SHALL BE WITH AN INVERTED TRAP CONNECTION AT THE MAIN.
6. A 12" DIRT LEG, AND A GAS COCK, SHALL BE PROVIDED AT ALL GAS APPLIANCES.
7. ALL EXPOSED GAS PIPING SHALL BE IDENTIFIED BY A YELLOW LABEL MARKED "GAS" IN BLACK LETTERS. THE MARKERS SHALL BE AT INTERVALS NOT EXCEEDING 5'.
8. ALL GAS BURNING EQUIPMENT SHALL BE INSTALLED PER NFPA #98, NFPA #54 (L.P.G.) OR NFPA #96 (COMMERCIAL COOKING EQUIPMENT).
9. GAS PIPE SIZES 2-1/2" AND GREATER SHALL BE WELDED, IF REQUIRED BY CODE.
10. GAS CONNECTIONS PER ANSI Z21.69

| GAS PIPE LEGEND |                           |
|-----------------|---------------------------|
|                 | BALL VALVE                |
|                 | DRIP LEG                  |
|                 | REGULATOR/OPD AS REQUIRED |
|                 | UNION                     |
|                 | QUICK DISCONNECT          |

NOTE:  
ALL NATURAL GAS PIPING IS SIZED BASED ON GAS PIPING WITH INITIAL PRESSURE OF 5 PSI. GAS PIPING IS SIZED AS PER 2012 NCGC TABLE 402.4(5).  
\* CONTRACTOR SHALL VERIFY FINAL GAS PRESSURES AND CONNECTIONS IN FIELD WITH LOCAL GAS COMPANY.

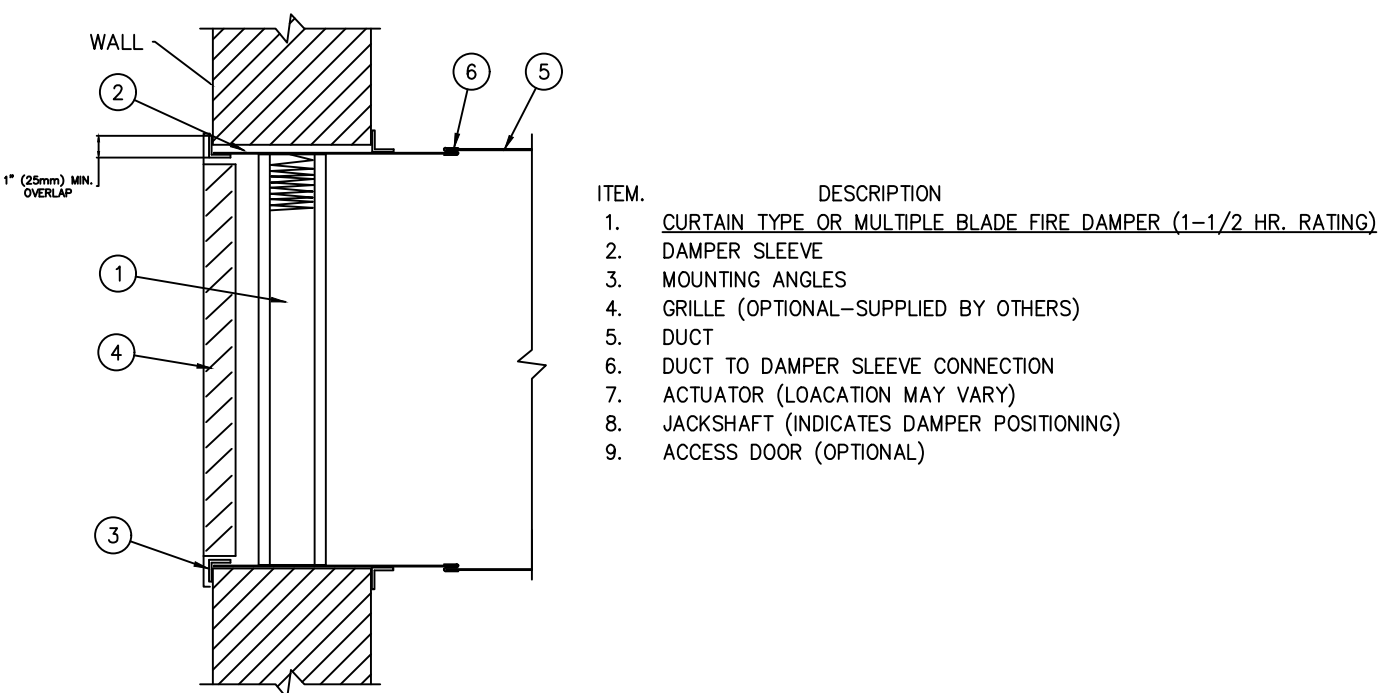


FIGURE 2  
TRANSFER OPENING  
CURTAIN TYPE FIRE DAMPER

<http://www.ruskin.com/doc/796>

## 2 WALL FIRE DAMPER DETAIL

NO SCALE

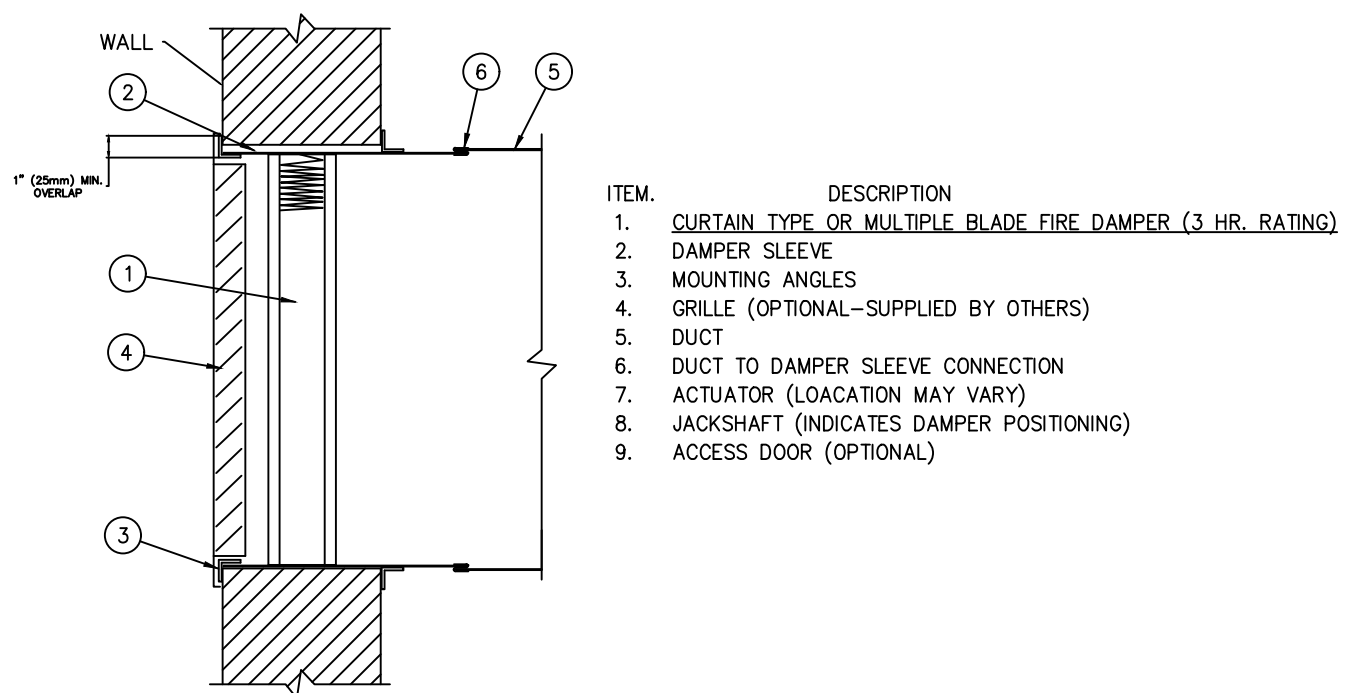
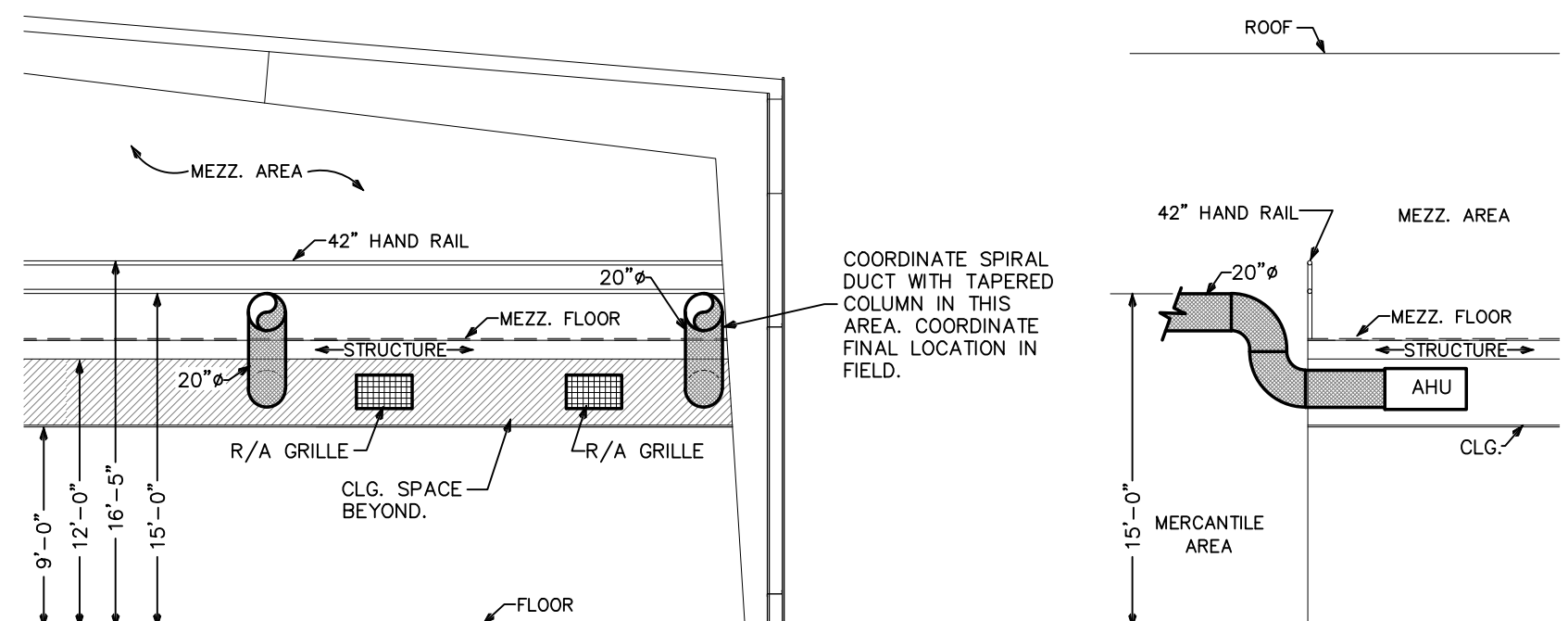


FIGURE 2  
TRANSFER OPENING  
CURTAIN TYPE FIRE DAMPER

<http://www.ruskin.com/doc/796>

## 3 WALL FIRE DAMPER DETAIL

NO SCALE



SECTION A

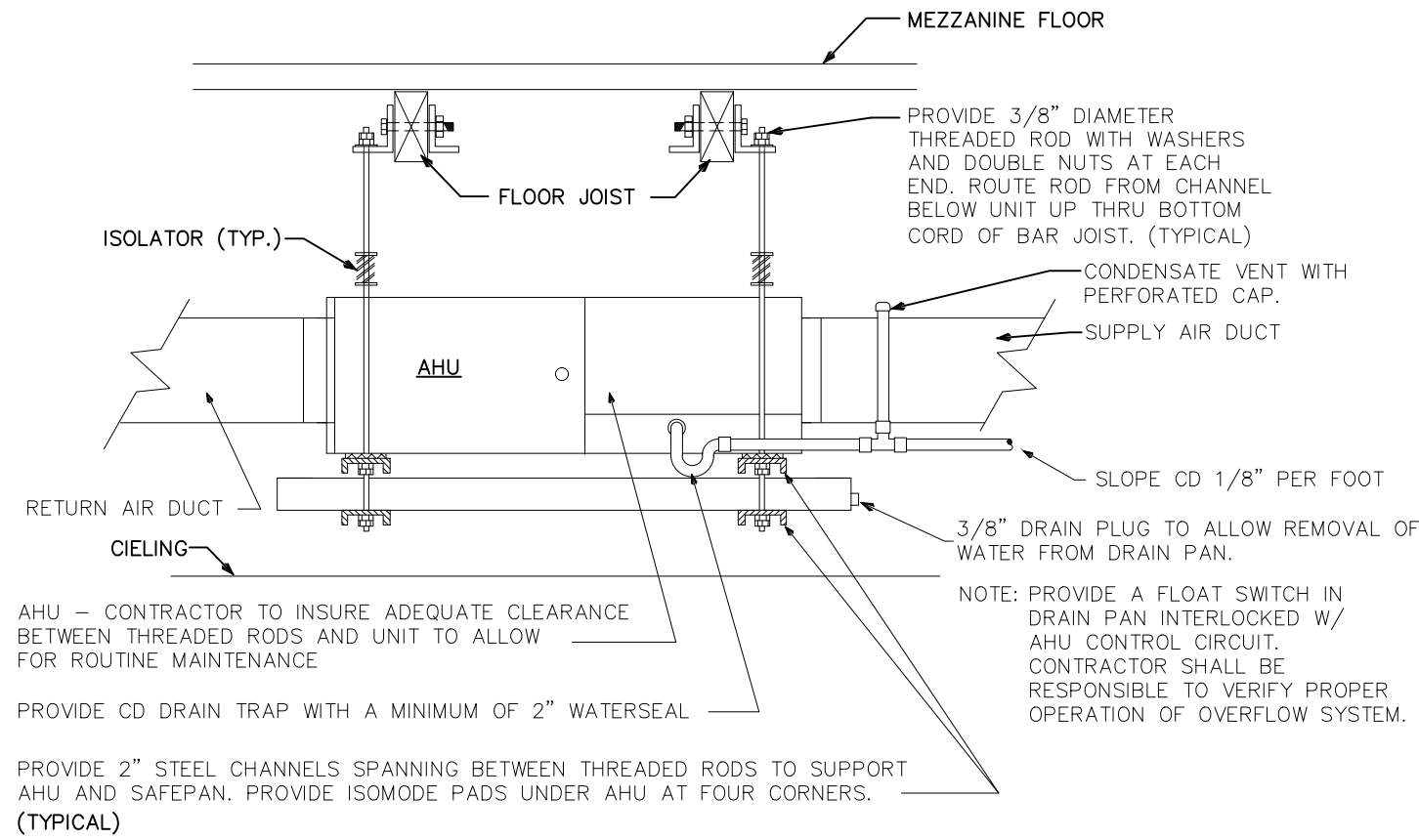
SECTION B

## 3 MERCANTILE DUCT SECTIONS

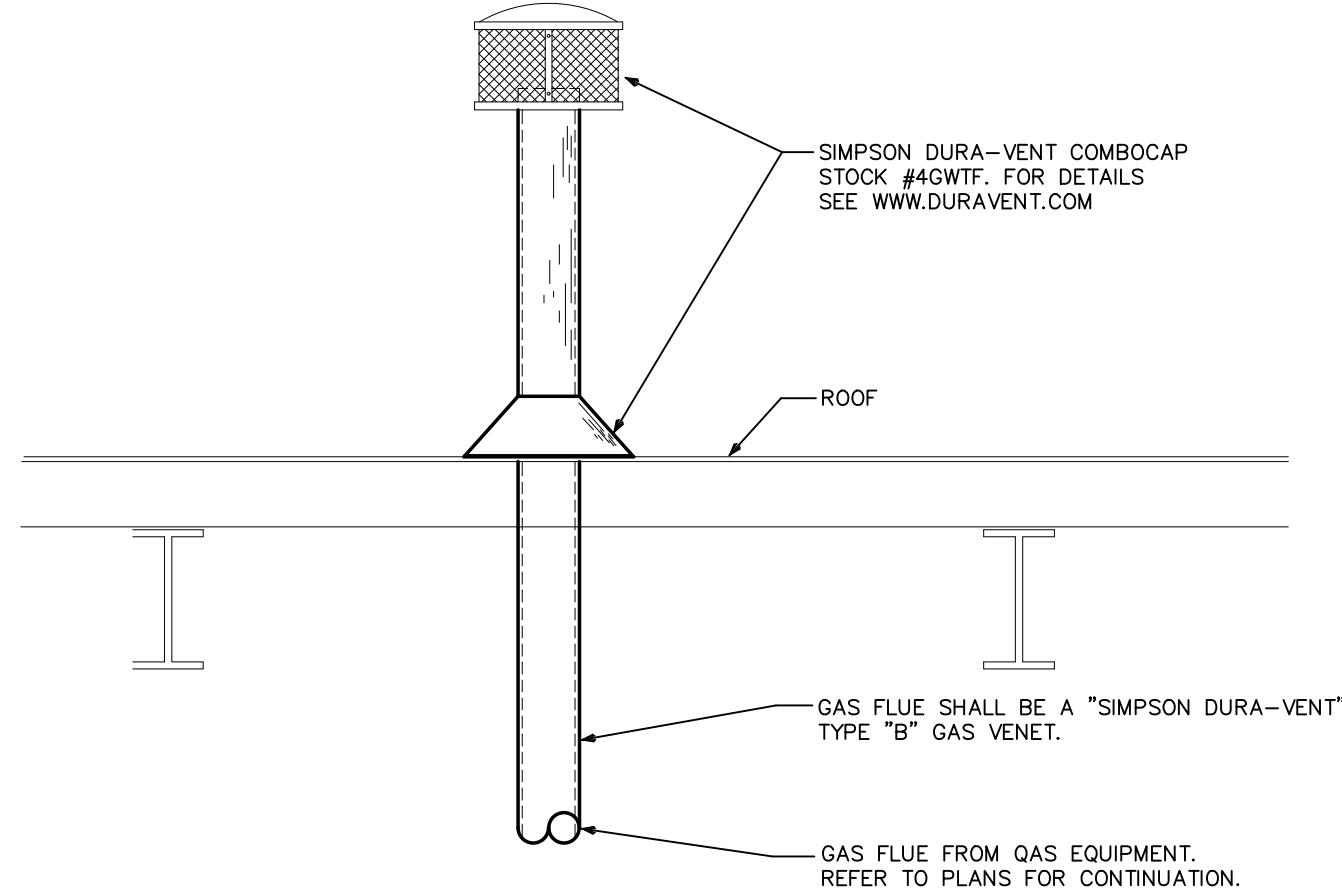
NO SCALE

TCA JOB#15103  
"TO THE BEST OF MY KNOWLEDGE, THE PLANS AND SPECIFICATIONS SUBMITTED HERewith COMPLY WITH EXISTING INTERPRETATIONS AND PROVISIONS OF THE APPLICABLE BUILDING CODES. THIS DRAWING IS THE PROPERTY OF TODD W. CAREY AND ASSOCIATES OF THE CAROLINAS, PA, AND IS AN INSTRUMENT OF SERVICE. NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME."

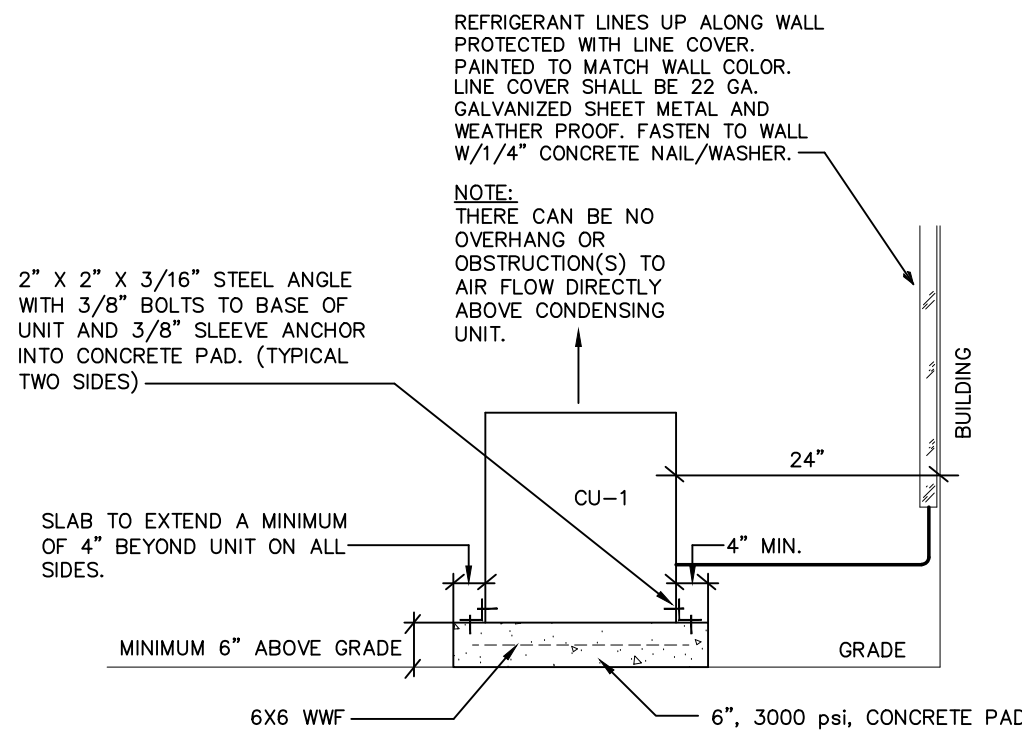
**TCA**  
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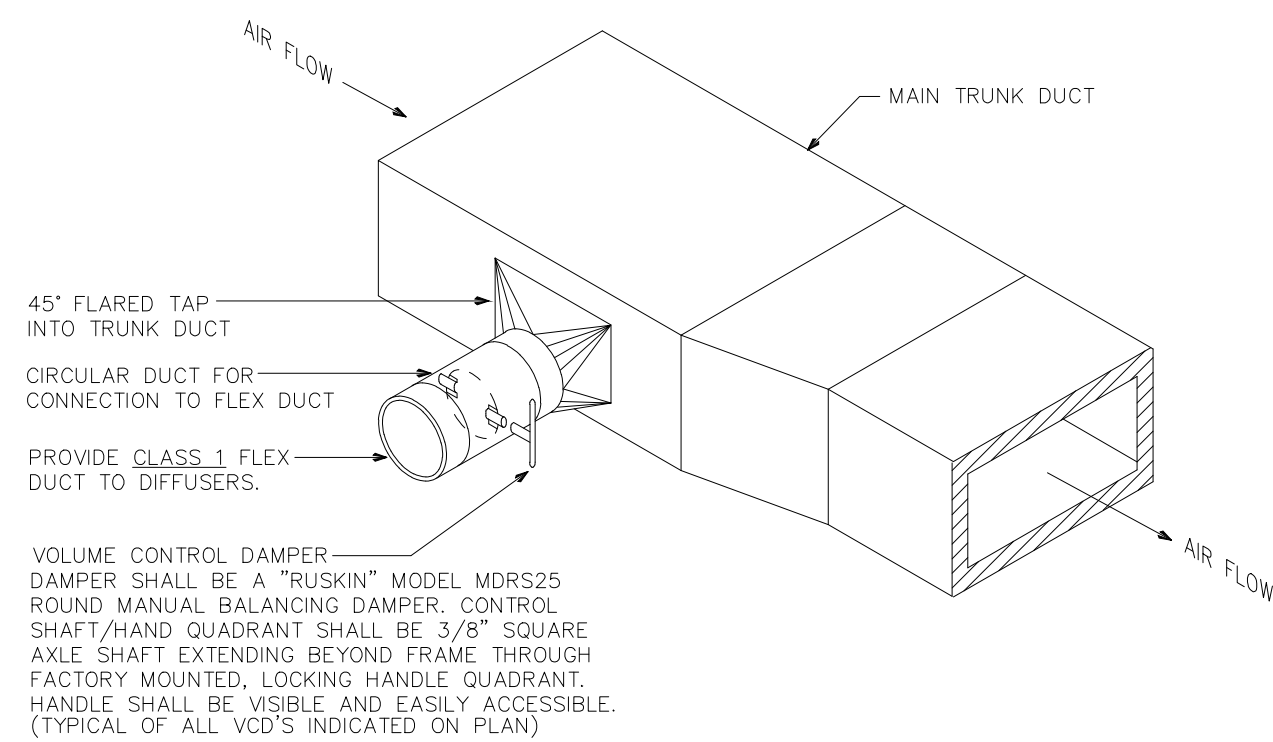
**1 AHU MOUNTING DETAIL**  
NO SCALE



**2 GAS FLUE DETAIL**  
NO SCALE



**3 COND. UNIT MTG. DETAIL**  
NO SCALE



**4 BRANCH DUCT DETAIL**  
NO SCALE

## APPENDIX B BUILDING CODE SUMMARY (MECHANICAL SUMMARY) MECHANICAL SYSTEMS, SERVICE SYSTEMS, AND EQUIPMENT

METHOD OF COMPLIANCE:  
Prescriptive ☒ Energy Cost Budget ☐  
Thermal Zone Zone 4A

Exterior Design Conditions  
winter dry bulb 20° F  
summer dry bulb 97° F

Interior Design Conditions  
winter dry bulb 68° F  
summer dry bulb 74° F  
relative humidity 52.9%

Building Heating Load 997,954 BTU  
Building Cooling Load 285,640 BTU

Mechanical Spacing Conditioning System  
Unitary  
Description of unit REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.  
heating efficiency REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.  
cooling efficiency REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.  
heat output of unit REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.  
cooling output of unit REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.

Boiler N/A  
total boiler output, if oversized, state reason.

Chiller N/A  
total chiller capacity, if oversized, state reason.

List equipment efficiencies  
Equipment schedules with motors (mechanical systems)  
motor horsepower REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.  
number of phases REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.  
minimum efficiency REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.  
motor type REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.  
# of poles REFER TO EQUIPMENT SCHEDULES ON THIS SHEET.

DESIGNER STATEMENT:<sup>1</sup>  
To the best of my knowledge and belief, the design of this building complies with the mechanical systems, service systems and equipment requirements of the North Carolina Energy Code 2012.

SIGNED:  
NAME: TODD W. CAREY  
TITLE: N.C. PROFESSIONAL ENGINEER #9079

NOTE:  
COMPLIANCE TO NC ENERGY  
SECTION 506 IS MADE BY  
LIGHTING LEVEL REDUCTION.

## GENERAL MECHANICAL NOTES

- THE CONTRACTOR SHALL FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY FOR THE INSTALLATION OF A COMPLETE SYSTEM IN ACCORDANCE WITH THESE DRAWINGS, THE APPLICABLE BUILDING CODE AND ALL OTHER APPLICABLE STATE, COUNTY AND LOCAL ORDINANCES AND THE LATEST ADDITION OF THE FOLLOWING PUBLICATIONS: SMACNA, ASHRAE, NFPA 90A, 90B, 91 & ANSI B-9.1. ALL DUCTWORK SHALL BE FABRICATED, INSTALLED AND SUPPORTED AS PER SMACNA STANDARDS.
- THE CONTRACTOR SHALL PAY ALL COSTS OF PERMIT, INSPECTIONS AND ALL OTHER COSTS INCIDENTAL TO THE COMPLETION AND TESTING OF THIS WORK.
- THE CONTRACTOR SHALL VISIT THE SITE AND COORDINATE WORK WITH OTHER TRADES TO INSURE AN ORDERLY PROGRESS OF THIS WORK.
- THE CONTRACTOR SHALL SUPPLY THE OWNER WITH ONE SET OF "AS-BUILT" DRAWINGS UPON COMPLETION OF THIS PROJECT. CONTRACTOR SHALL ALSO LEAVE FOR ONE AT LEAST ONE SET OF THE MANUFACTURER'S INSTALLATION AND OPERATIONS MANUALS FOR ALL EQUIPMENT PROVIDED ON THE PROJECT.
- ALL PROVIDED MATERIALS SHALL BE NEW OF GOOD QUALITY. ALL WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER BY SKILLED WORKMAN.
- CONTRACTOR SHALL SUBMIT, FOR APPROVAL FIVE (5) COPIES OF MANUFACTURER'S DRAWINGS FOR EACH PIECE OF EQUIPMENT AND CONTROLS INCLUDED IN CONTRACT. IT IS STRONGLY PREFERRED THAT THE SUBMITTALS BE MADE IN THE FORM OF AN ELECTRONIC SUBMITTAL IN A PDF TYPE FORMAT.
- ALL SUPPLY AND RETURN AIR DUCTWORK SHALL BE GALVANIZED SHEET STEEL EXTERNALLY WRAPPED WITH WITH A MIN. OF R5 INSULATION OR R8 IF DUCTWORK IS LOCATED EXTERIOR TO BLDG INSULATION ENVELOPE. ALL FLEX DUCT SHALL BE "THERMOFLEX" WITH A MINIMUM 4.2 R VALUE. OR APPROVED EQUAL AND SHALL HAVE EQUIVALENT INSULATION.
- ALL EXHAUST DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED SHEET METAL WITH SEALED SEAMS AND JOINTS.
- DUCT SIZES SHOWN ARE INSIDE DIMENSIONS.
- ALL AIR DEVICES (DIFFUSERS, REGISTERS AND GRILLES) SHALL BE ALL ALUMINUM CONSTRUCTION WITH EXPOSED SURFACE OFF WHITE BAKED ENAMEL FINISH OR AS SPECIFIED BY ARCHITECT. DEVICES SHALL BE TITUS, METALAIR, AIRGUIDE. PROVIDE OPPOSED BLADE DAMPERS AT ALL DIFFUSERS AND REGISTERS.
- THERMOSTAT SHALL BE COMBINATION COOLING/HEATING, WITH SYSTEM "COOL-AUTO-HEAT-OFF" AND FAN "ON-AUTO" SELECTOR SWITCHES. PROVIDE PROGRAMMABLE TYPE THERMOSTAT. \* CONTRACTOR SHALL FULLY INSTRUCT OWNER ON HOW TO PROPERLY PROGRAM INSTALLED THERMOSTATS. \* PROGRAMMABLE THERMOSTAT SHALL BE BY MANUFACTURER OF INSTALLED AIR HANDLING UNIT. IT IS RECOMMENDED THAT DURING OCCURRED HOURS, THE FANS BE SET TO "ON" IN LIEU OF "AUTO". \* THERMOSTATS SHALL BE MOUNTED A MAX. OF 48" A.F.F.
- REFRIGERANT LINES SHALL BE COPPER, TYPE "L" HARD DRAWN WITH WROUGHT COPPER SOLDER-JOINT TYPE FITTINGS, USE 95/5 SOLDER. REFRIGERANT LINES SHALL SIZED AS PER MANUFACTURER RECOMMENDATIONS.
- SPLIT SYSTEMS (IF APPLICABLE) SHALL HAVE A MINIMUM OF 1-1/2" ARMAFLEX INSULATION (OR APPROVED EQUAL) USED FOR SUCTION LINES. INSTALLATION SHALL BE AS PER MANUFACTURERS INSTRUCTIONS. PRE-INSULATED LINES SETS ARE ACCEPTABLE.
- ALL BRANCH TAKE-OFFS TO BE PROVIDED W/MANUAL VOLUME DAMPERS AND TAPS AS PER PLANS REQUIREMENTS.
- PROVIDE NEW FILTERS FOR ALL AIR CONDITIONING EQUIPMENT BEFORE STARTING THEM. REPLACE THEM PRIOR TO FINAL ACCEPTANCE BY OWNER.
- PROVIDE SMOKE DETECTORS WITH ACCESS DOORS IN ALL SUPPLY AIR DUCTS FOR FANS AND AHU'S SERVING A COMMON DESIGN SUPPLY OR RETURN PLENUM OF ABOVE 2000 CFM. ALL SMOKE DETECTORS SHALL BE BY ONE MANUFACTURER. COORDINATE VOLTAGE ETC. WITH ELECTRICAL CONTRACTOR AND FIRE ALARM SYSTEM BEFORE ORDERING. UPON DETECTION, SMOKE DETECTORS SHALL SHUT DOWN ASSOCIATED AIR MOVING EQUIPMENT AND ALL AIR MOVING EQUIPMENT SERVING THAT COMMON PLENUM.
- HVAC CONTRACTOR SHALL PROVIDE A TEST AND BALANCE REPORT FOR ALL MECHANICAL EQUIPMENT, AIR DEVICES, DAMPERS, AHU'S AND FANS. THE T & B SHALL BE IN ACCORDANCE WITH THE AIR BALANCE COUNCIL STANDARDS, AND SHALL INCLUDE AIR QUANTITIES FOR ALL SUPPLY GRILLS, RETURN GRILLS, AND EXHAUST GRILLS, AND THE LEAVING AND ENTERING AIR TEMPERATURE (°F) FROM SUPPLY GRILLS AND EVAPORATORS.
- THERMOSTAT LOCATION SHALL BE APPROVED BY OWNER BEFORE INSTALLATION.
- ALL INSULATION SHALL HAVE FIRE/SMOKE RATING LESS THAN 25/50.
- MECHANICAL PLANS IN GENERAL, ARE DIAGRAMMATIC IN NATURE, AND ARE TO BE READ IN CONJUNCTION WITH ARCH. PLUMBING, ELECTRICAL AND STRUCTURAL PLANS AND SHALL BE CONSIDERED AS ONE SET OF DOCUMENTS. DUCT AND PIPING OFFSETS, BENDS AND TRANSITIONS WILL BE REQUIRED TO PROVIDE AND INSTALL A COMPLETE FUNCTIONAL SYSTEM AND SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
- CONTRACTOR SHALL INSTALL ALL OUTDOOR EQUIPMENT TO WITHSTAND WIND LOADING FORCES AS REQUIRED BY LOCAL CODES. REFER TO STRUCTURAL PLANS BY OTHERS FOR STRUCTURAL DETAILS.
- PROVIDE ALL NECESSARY CONTACTORS, RELAYS, ETC., FOR A COMPLETE OPERATING SYSTEM.
- THROUGHOUT THE COURSE OF THE WORK, MINOR CHANGES AND ADJUSTMENTS TO THE PLANS AND SPECIFICATIONS MAY BE REQUESTED BY THE TENANT. THE CONTRACTOR SHALL MAKE SUCH ADJUSTMENTS WITHOUT ADDITIONAL COST TO THE TENANT, WHERE SUCH ADJUSTMENTS ARE NECESSARY FOR THE PROPER INSTALLATION AND OPERATION OF THE SYSTEMS, AND WITHIN THE INTENT OF THE CONTRACT DOCUMENTS.
- NOTWITHSTANDING ANY OTHER PROVISIONS OF THE CONTRACT DOCUMENTS, THE CONTRACTOR BEARS ULTIMATE RESPONSIBILITY FOR COMPLIANCE OF THE INSTALLATION WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- IF ANY ERRORS, DISCREPANCIES OR OMISSIONS APPEAR IN THE DRAWINGS, SPECIFICATIONS OR OTHER CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF SUCH ERROR OR OMISSION. IN THE EVENT OF THE CONTRACTOR FAILING TO GIVE SUCH NOTICE BEFORE CONSTRUCTION AND/OR FABRICATION OF THE WORK, HE WILL BE HELD RESPONSIBLE FOR THE RESULTS OF ANY SUCH ERRORS, DISCREPANCIES OR OMISSIONS AND THE COST OF RECTIFYING SAME.

## GRAVITY VENTED GAS-FIRED UNIT HEATER SCHEDULE

| LABEL                                                                                                                                                                            | MANUFACTURER & MODEL NO. | CFM   | BTUH OUTPUT CAPACITY | BTUH INPUT CAPACITY | SEASONAL EFFICIENCY | MOTOR FLA | VENT SIZE | MOTOR H.P. | RPM  | VOLTAGE | M.O.C.P. | GAS CONNECTION | WEIGHT   | NOTES |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------|----------------------|---------------------|---------------------|-----------|-----------|------------|------|---------|----------|----------------|----------|-------|
| UH #1-8                                                                                                                                                                          | REZNOR MODEL B-125       | 2,055 | 100,000              | 125,000             | 80%                 | 6.0       | 7"ø       | 1/3 HP     | 1550 | 120V/1ø | 20 AMPS  | 1/2"ø          | 176 lbs. |       |
| GENERAL NOTES:                                                                                                                                                                   |                          |       |                      |                     |                     |           |           |            |      |         |          |                |          |       |
| * ALL RATINGS ARE AT ARI ENTERING CONDITIONS UNLESS OTHERWISE NOTED.                                                                                                             |                          |       |                      |                     |                     |           |           |            |      |         |          |                |          |       |
| * CONTRACTOR MAY SUBSTITUTE MANUFACTURER FOR APPROVED EQUAL. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT ANY CLEARANCE REQUIREMENTS ARE MET FOR ANY SUBSTITUTIONS. |                          |       |                      |                     |                     |           |           |            |      |         |          |                |          |       |
| * PRODUCT DATE: <a href="http://www.rezspec.com/files/C-UH_vH11.pdf">http://www.rezspec.com/files/C-UH_vH11.pdf</a>                                                              |                          |       |                      |                     |                     |           |           |            |      |         |          |                |          |       |

## FAN SCHEDULE

| LABEL                                                                                                                                                                                                                                                                 | TYPE OF UNIT -- AREA SERVED     | MANUFACTURER & MODEL NO. | CFM   | SP    | MOUNTING ARRANGEMENT | MOTOR H.P. | ENCLOSURE TYPE  | RPM  | VOLTAGE | NOTES |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|--------------------------|-------|-------|----------------------|------------|-----------------|------|---------|-------|
| EF-1                                                                                                                                                                                                                                                                  | CABINET FAN -- REFER TO PLANS   | PENN ZEPHYR Z6           | 90    | .125" | CEILING MOUNTED      | 50 WATTS   | OPEN DRIP PROOF | 1055 | 277V/1ø | 1,2   |
| EF-2                                                                                                                                                                                                                                                                  | CABINET FAN -- REFER TO PLANS   | PENN ZEPHYR Z81          | 300   | .125" | CEILING MOUNTED      | 124 WATTS  | OPEN DRIP PROOF | 1115 | 277V/1ø | 1,2   |
| EF-3                                                                                                                                                                                                                                                                  | CABINET FAN -- REFER TO PLANS   | PENN ZEPHYR Z81          | 300   | .125" | CEILING MOUNTED      | 124 WATTS  | OPEN DRIP PROOF | 1115 | 277V/1ø | 1,2   |
| EF-4                                                                                                                                                                                                                                                                  | CABINET FAN -- REFER TO PLANS   | PENN ZEPHYR Z6           | 90    | .125" | CEILING MOUNTED      | 50 WATTS   | OPEN DRIP PROOF | 1055 | 277V/1ø | 1,2   |
| EF-5                                                                                                                                                                                                                                                                  | CABINET FAN -- REFER TO PLANS   | PENN ZEPHYR Z7           | 190   | .125" | CEILING MOUNTED      | 68 WATTS   | OPEN DRIP PROOF | 1640 | 277V/1ø | 1,2   |
| EF-6                                                                                                                                                                                                                                                                  | CABINET FAN -- REFER TO PLANS   | PENN ZEPHYR Z7           | 190   | .125" | CEILING MOUNTED      | 68 WATTS   | OPEN DRIP PROOF | 1640 | 120V/1ø | 1,2   |
| EF-7                                                                                                                                                                                                                                                                  | IN LINE FAN -- REFER TO PLANS   | PENN ZEPHYR Z8H (TDA)    | 375   | .125" | IN-LINE              | 132 WATTS  | OPEN DRIP PROOF | 1115 | 120V/1ø | 1     |
| EF-8                                                                                                                                                                                                                                                                  | IN-LINE FAN -- REFER TO PLANS   | PENN ZEPHYR Z8H (TDA)    | 375   | .125" | IN-LINE              | 132 WATTS  | OPEN DRIP PROOF | 1115 | 120V/1ø | 1     |
| EF-9                                                                                                                                                                                                                                                                  | ROOF FAN -- REFER TO PLANS      | PENN DOMEX DX08B         | 600   | .125" | ROOF MOUNTED         | 1/4 HP     | OPEN DRIP PROOF | 912  | 120V/1ø | 1     |
| EF-10                                                                                                                                                                                                                                                                 | ROOF FAN -- REFER TO PLANS      | PENN DOMEX DX12D         | 600   | .125" | ROOF MOUNTED         | 1/4 HP     | OPEN DRIP PROOF | 481  | 120V/1ø | 1,3   |
| EF-11                                                                                                                                                                                                                                                                 | ROOF FAN -- REFER TO PLANS      | PENN DOMEX DX11S         | 400   | .125" | ROOF MOUNTED         | 1/11 HP    | OPEN DRIP PROOF | 1300 | 120V/1ø | 1     |
| EF-12                                                                                                                                                                                                                                                                 | PROPELLAR FAN -- REFER TO PLANS | PENN BREEZEWAY BLL24     | 2,400 | .125" | WALL MOUNTED         | 1/4 HP     | OPEN DRIP PROOF | 570  | 120V/1ø | 1     |
| EF-13                                                                                                                                                                                                                                                                 | PROPELLAR FAN -- REFER TO PLANS | PENN BREEZEWAY BLL24     | 2,400 | .125" | WALL MOUNTED         | 1/4 HP     | OPEN DRIP PROOF | 570  | 120V/1ø | 1,2   |
| NOTES:<br>1.) REFER TO ELECTRICAL PLANS FOR CONTROL.<br>2.) PROVIDE A 277V TO 120V STEPDOWN TRANSFORMER EQUAL TO A ELCO MODEL ETR-277. 300VA RATED CAPACITY. HVAC CONTRACTOR TO PROVIDE, ELECTRICIAN TO INSTALL.<br>3.) CLASS 1 DIV 1 UL RATED EXPLOSION PROOF MOTOR. |                                 |                          |       |       |                      |            |                 |      |         |       |

## AIR COOLED AIR CONDITIONING UNIT SCHEDULE

| CONDENSING UNIT                                                                                                                                                                                                                                                                                                            |                          |                        |                        |         |      |          |         | INDOOR UNIT                                                                                                                                                    |                          |           |         |              |         |         |       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------|------------------------|---------|------|----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------|---------|--------------|---------|---------|-------|
| CU LABEL(S)                                                                                                                                                                                                                                                                                                                | MANUFACTURER & MODEL NO. | TOTAL CAPACITY COOLING | TOTAL CAPACITY HEATING | VOLTAGE | MOCP | EER/SEER | WEIGHT  | AHU LABEL(S)                                                                                                                                                   | MANUFACTURER & MODEL NO. | TOTAL CFM | FAN FLA | BLOWER SPEED | VOLTAGE | WEIGHT  | NOTES |
| CU #6                                                                                                                                                                                                                                                                                                                      | MITSUBISHI: SUZ-KA12NA   | 11,100                 | 13,600                 | 208V/1ø | 15A  | EER 13.8 | 66 lbs. | A/C #6                                                                                                                                                         | MITSUBISHI: SLZ-KA12NA   | 280 - 390 | 0.28    | 4-SPEED      | 208V/1ø | 22 lbs. | 1,2,3 |
| SPECIFIC NOTES:<br>1) SIZE AND RUN REFRIGERANT PIPING AS PER MANUFACTURERS PUBLISHED RECOMMENDATIONS.<br>2) INSULATE REFRIGERANT SUCTION LINE WITH 3/4" ARMAFLEX OR APPROVED EQUAL.<br>3) POWER SUPPLY IS TO OUTDOOR UNIT, INTERCONNECTING WIRING FROM OUTDOOR UNIT TO INDOOR UNIT. REFER TO ELECTRICAL PLANS FOR CONTROL. |                          |                        |                        |         |      |          |         | PRODUCT DATA:<br>OUTDOOR UNIT: <a href="http://goo.gl/LyNnyQ">http://goo.gl/LyNnyQ</a><br>INDOOR UNIT: <a href="http://goo.gl/9QmjvK">http://goo.gl/9QmjvK</a> |                          |           |         |              |         |         |       |

## AIR COOLED HEAT PUMP SCHEDULE

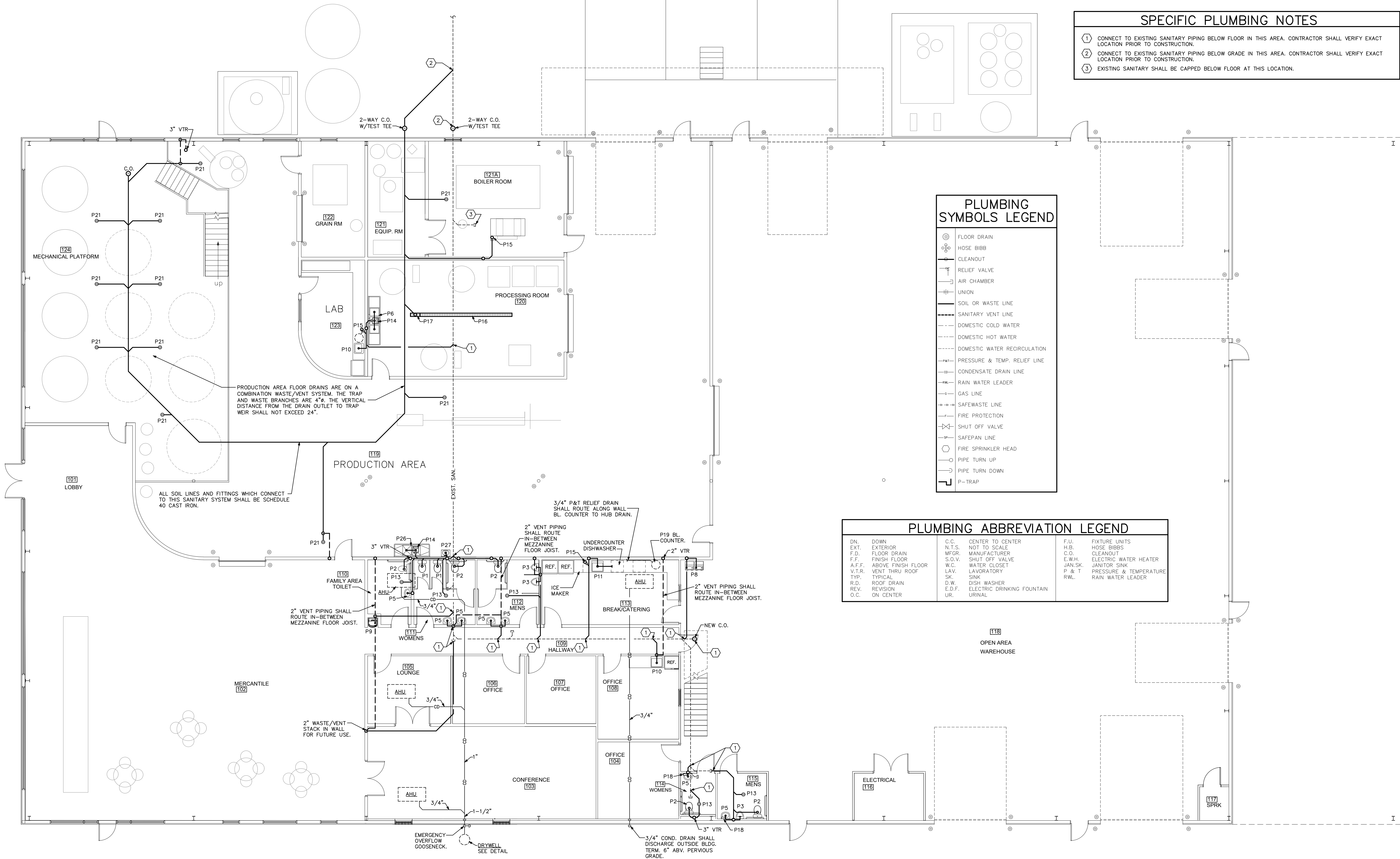
| HEAT PUMP                                                                                                                                                                                                                                                                                                                                                                                           |                          |                        |                           |                        |                                                                                                                                              |         |         |      |          |                                                                                                                                                                                             | AIR HANDLING UNIT |                          |           |         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |              |        |         |          |                                                                                                                                                                                                                                                                                                                                              |         | INTEGRATED ELECTRIC HEATING |  |  |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------------------------|---------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|--------------------------|-----------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|--------|---------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------------|--|--|--|
| CU LABEL(S)                                                                                                                                                                                                                                                                                                                                                                                         | MANUFACTURER & MODEL NO. | TOTAL CAPACITY COOLING | SENSIBLE CAPACITY COOLING | TOTAL CAPACITY HEATING | COMP. RLA                                                                                                                                    | FAN FLA | VOLTAGE | MOCP | EER/SEER | WEIGHT                                                                                                                                                                                      | AHU LABEL(S)      | MANUFACTURER & MODEL NO. | TOTAL CFM | O/A CFM | E.S.P.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | BLOWER SPEED | FAN HP | VOLTAGE | WEIGHT   | HEATER KW                                                                                                                                                                                                                                                                                                                                    | VOLTAGE | NOTES                       |  |  |  |
| CU #1                                                                                                                                                                                                                                                                                                                                                                                               | CARRIER 25HCD336A006     | 35,620                 | 25,730                    | 33,730                 | 5.8                                                                                                                                          | 0.6     | 480V/3ø | 10A  | 14.0     | 189 lbs.                                                                                                                                                                                    | AHU #1            | CARRIER FX4DNF037L00     | 1,200     | SEE SCH | .4"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HIGH         | 1/2 HP | 240V/1ø | 144 lbs. | 5 K.W.                                                                                                                                                                                                                                                                                                                                       | 480V/3ø | 1 THRU 6                    |  |  |  |
| CU #2                                                                                                                                                                                                                                                                                                                                                                                               | CARRIER 25HCD348A006     | 47,940                 | 35,980                    | 35,980                 | 6.2                                                                                                                                          | 0.6     | 480V/3ø | 10A  | 13.5     | 295 lbs.                                                                                                                                                                                    | AHU #2            | CARRIER FX4DNF049L00     | 1,600     | SEE SCH | .3"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HIGH         | 3/4 HP | 240V/1ø | 168 lbs. | 8 KW                                                                                                                                                                                                                                                                                                                                         | 480V/3ø | 1 THRU 6                    |  |  |  |
| CU #3-5                                                                                                                                                                                                                                                                                                                                                                                             | CARRIER 25HCD360A006     | 59,730                 | 43,920                    | 57,990                 | 7.8                                                                                                                                          | 0.6     | 480V/3ø | 15A  | 13.5     | 282 lbs.                                                                                                                                                                                    | AHU #3-5          | CARRIER FX4DNF061L00     | 1,925     | SEE SCH | .4"                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HIGH         | 3/4 HP | 240V/1ø | 201 lbs. | 15 KW                                                                                                                                                                                                                                                                                                                                        | 480V/3ø | 1 THRU 6                    |  |  |  |
| GENERAL NOTES:<br>* ALL RATINGS ARE AT ARI ENTERING CONDITIONS UNLESS OTHERWISE NOTED.<br>* PROVIDE VIBRATION ISOLATION FOR UNITS.<br>* EXTERNAL STATIC PRESSURE DOES NOT INCLUDE COIL OR FILTER PRESSURE DROP.<br>* CONTRACTOR MAY SUBSTITUTE MANUFACTURER FOR APPROVED EQUAL. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO VERIFY THAT ANY CLEARANCE REQUIREMENTS ARE MET FOR ANY SUBSTITUTIONS. |                          |                        |                           |                        | ABBREVIATION LEGEND:<br><b>O/A</b> – OUTSIDE AIR<br><b>HP</b> – HORSE POWER<br><b>RLA</b> – RUNNING LOAD AMPS<br><b>FLA</b> – FULL LOAD AMPS |         |         |      |          | MOCP – MAX. OVERCURRENT PROTECTION (DUAL ELEMENT TYPE FUSE)<br><b>E.S.P.</b> – EXTERNAL STATIC PRESSURE<br><b>EER</b> – ENERGY EFFICIENCY RATIO<br><b>SEER</b> – SEASONAL ENERGY EFF. RATIO |                   |                          |           |         | SPECIFIC NOTES:<br>1) SIZE AND RUN REFRIGERANT PIPING AS PER MANUFACTURERS PUBLISHED RECOMMENDATIONS.<br>2) INSTALL REFRIGERANT SUCTION LINE WITH 3/4" ARMAFLEX OR APPROVED EQUAL.<br>3) INSTALL FILTER DRYER AND STRAINER IN REFRIGERANT SUCTION LINE.<br>4) PROVIDE FIELD INSTALLED ACCESSORIES, AND 5 MINUTE TIME DELAY SWITCH.<br>5) PROVIDE 5 YEAR WARRANTY AND 1 YEAR WARRANTY ON ALL PARTS AND LABOR.<br>6) PROVIDE 480V/3ø STRIP HEATER AND AN INTEGRAL 480/240 VOLT STEP DOWN TRANSFORMER FOR AHU FAN MOTOR. SINGLE POINT POWER CONNECTION. WARREN COMPANY, OR APPROVED EQUAL. |              |        |         |          | SEQUENCE OF OPERATION FOR HEATING<br>FIRST STAGE<br>WHEN THE THERMOSTAT CALLS FOR HEATING, THE INDOOR FAN MOTOR, OUTDOOR FAN MOTORS AND THE COMPRESSOR (FULLY LOADED) ARE ENERGIZED. THE REVERSING VALVE SOLENOID IS ENERGIZED IN THE HEATING MODE.<br>SECOND STAGE<br>IF ADDITIONAL HEAT IS REQUIRED, THE ELECTRIC HEAT SHALL BE ENERGIZED. |         |                             |  |  |  |

SEQUENCE OF OPERATION FOR HEATING  
FIRST STAGE  
WHEN THE THERMOSTAT CALLS FOR HEATING, THE INDOOR FAN MOTOR, OUTDOOR FAN MOTORS AND THE COMPRESSOR (FULLY LOADED) ARE ENERGIZED. THE REVERSING VALVE SOLENOID IS ENERGIZED IN THE HEATING MODE.  
SECOND STAGE  
IF ADDITIONAL HEAT IS REQUIRED, THE ELECTRIC HEAT SHALL BE ENERGIZED.

TCA JOB#15103

"TO THE BEST OF MY KNOWLEDGE, THE PLANS AND SPECIFICATIONS SUBMITTED HERewith COMPLY WITH EXISTING INTERPRETATIONS AND PROVISIONS OF THE APPLICABLE BUILDING CODES. THIS DRAWING IS THE PROPERTY OF TODD W. CAREY AND ASSOCIATES OF THE CAROLINAS, PA, AND IS AN INSTRUMENT OF SERVICE. NOT TO BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME."

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- SPECIFIC PLUMBING NOTES**
- 1 CONNECT TO EXISTING SANITARY PIPING BELOW FLOOR IN THIS AREA. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION.
  - 2 CONNECT TO EXISTING SANITARY PIPING BELOW GRADE IN THIS AREA. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION.
  - 3 EXISTING SANITARY SHALL BE CAPPED BELOW FLOOR AT THIS LOCATION.

| PLUMBING SYMBOLS LEGEND |                              |
|-------------------------|------------------------------|
|                         | FLOOR DRAIN                  |
|                         | HOSE BIBB                    |
|                         | CLEANOUT                     |
|                         | RELIEF VALVE                 |
|                         | AIR CHAMBER                  |
|                         | UNION                        |
|                         | SOIL OR WASTE LINE           |
|                         | SANITARY VENT LINE           |
|                         | DOMESTIC COLD WATER          |
|                         | DOMESTIC HOT WATER           |
|                         | DOMESTIC WATER RECIRCULATION |
|                         | PRESSURE & TEMP. RELIEF LINE |
|                         | CONDENSATE DRAIN LINE        |
|                         | RAIN WATER LEADER            |
|                         | GAS LINE                     |
|                         | SAFEWASTE LINE               |
|                         | FIRE PROTECTION              |
|                         | SHUT OFF VALVE               |
|                         | SAFE PAN LINE                |
|                         | FIRE SPRINKLER HEAD          |
|                         | PIPE TURN UP                 |
|                         | PIPE TURN DOWN               |
|                         | P-TRAP                       |

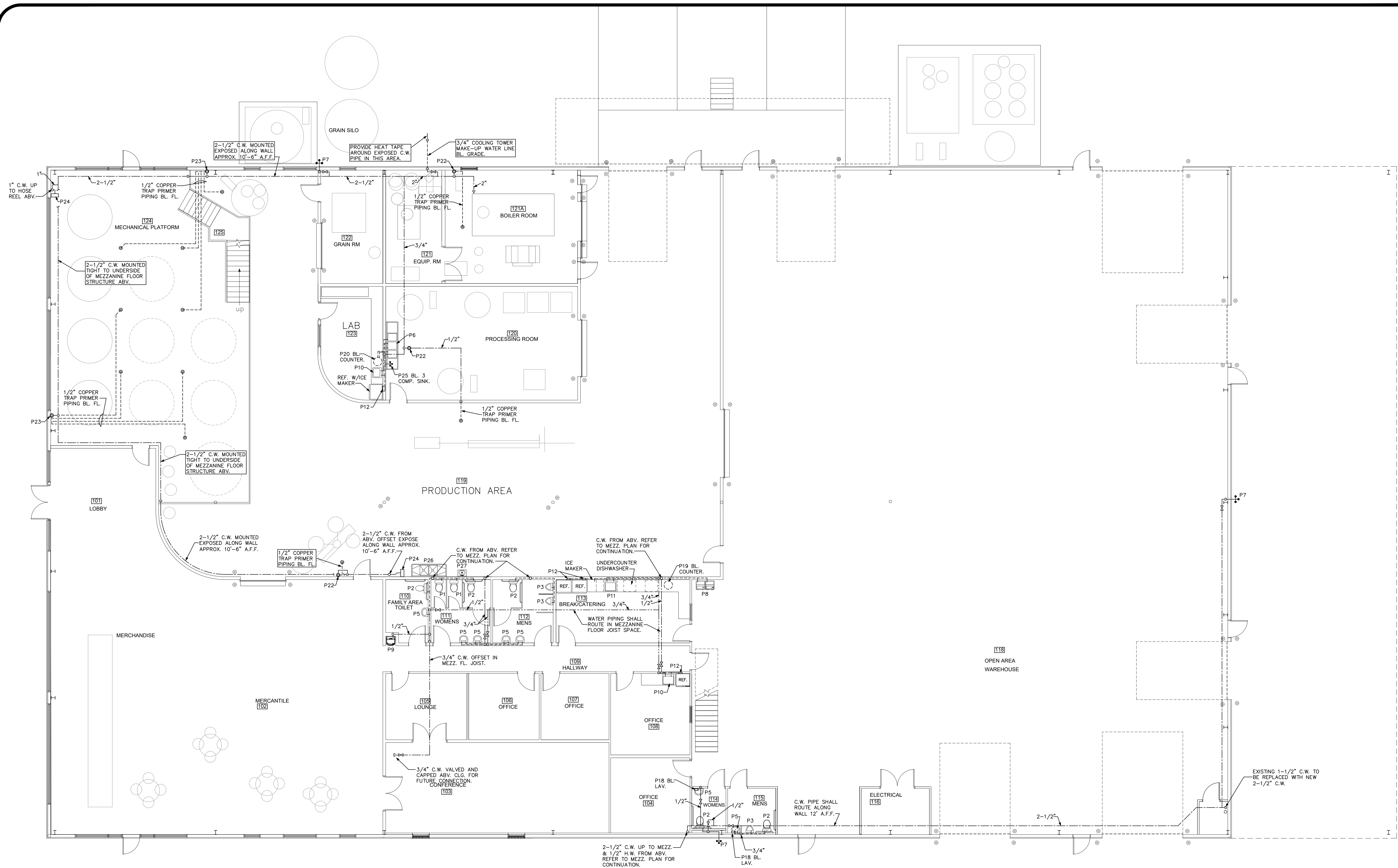
| PLUMBING ABBREVIATION LEGEND |                        |        |                            |
|------------------------------|------------------------|--------|----------------------------|
| DN.                          | DOWN                   | C.C.   | CENTER TO CENTER           |
| EXT.                         | EXTERIOR               | N.T.S. | NOT TO SCALE               |
| F.D.                         | FLOOR DRAIN            | MFG.   | MANUFACTURER               |
| F.F.                         | FINISH FLOOR           | S.O.V. | SHUT OFF VALVE             |
| A.F.F.                       | ABOVE FINISH FLOOR     | W.C.   | WATER CLOSET               |
| V.T.R.                       | VENT THRU ROOF         | LAV.   | LAVATORY                   |
| TYP.                         | TYPICAL                | SK.    | SINK                       |
| R.D.                         | ROOF DRAIN             | D.W.   | DISH WASHER                |
| REV.                         | REVISION               | E.D.F. | ELECTRIC DRINKING FOUNTAIN |
| O.C.                         | ON CENTER              | UR.    | URINAL                     |
| F.U.                         | FIXTURE UNITS          |        |                            |
| H.B.                         | HOSE BIBBS             |        |                            |
| C.O.                         | CLEANOUT               |        |                            |
| E.W.H.                       | ELECTRIC WATER HEATER  |        |                            |
| JAN.SK.                      | JANITOR SINK           |        |                            |
| P & T                        | PRESSURE & TEMPERATURE |        |                            |
| RWL.                         | RAIN WATER LEADER      |        |                            |

(SANITARY PIPING)  
**1 FLOOR PLAN - PLUMBING**  
SCALE: 1/4"=1'-0"

TCA JOB#15103

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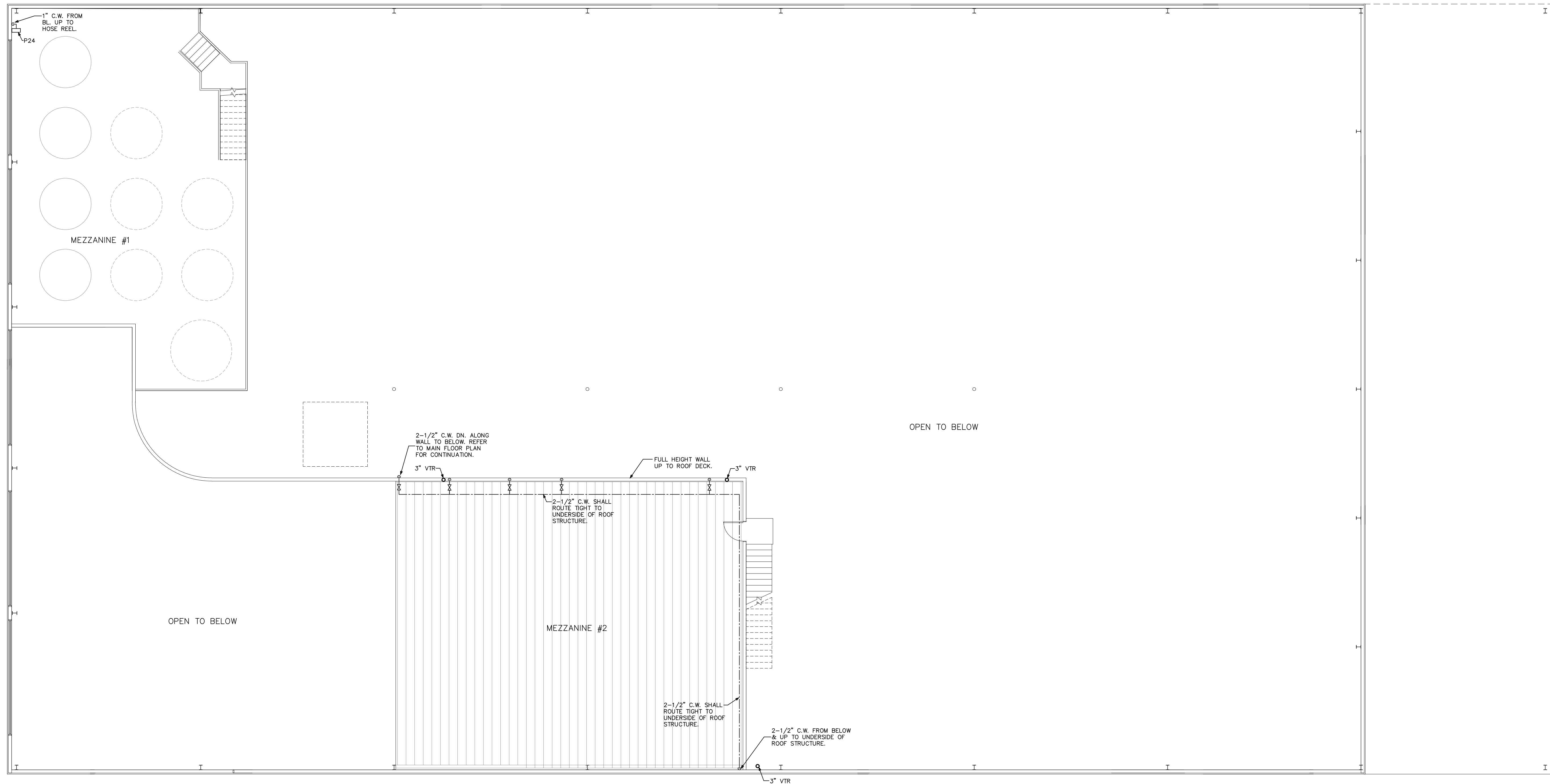


(WATER PIPING)  
**1 FLOOR PLAN - PLUMBING**  
SCALE: 1/4"=1'-0"

TCA JOB#15103

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**1 MEZZANINE FLOOR PLAN - PLUMBING**  
SCALE: 1/4"=1'-0"

TCA JOB#15103

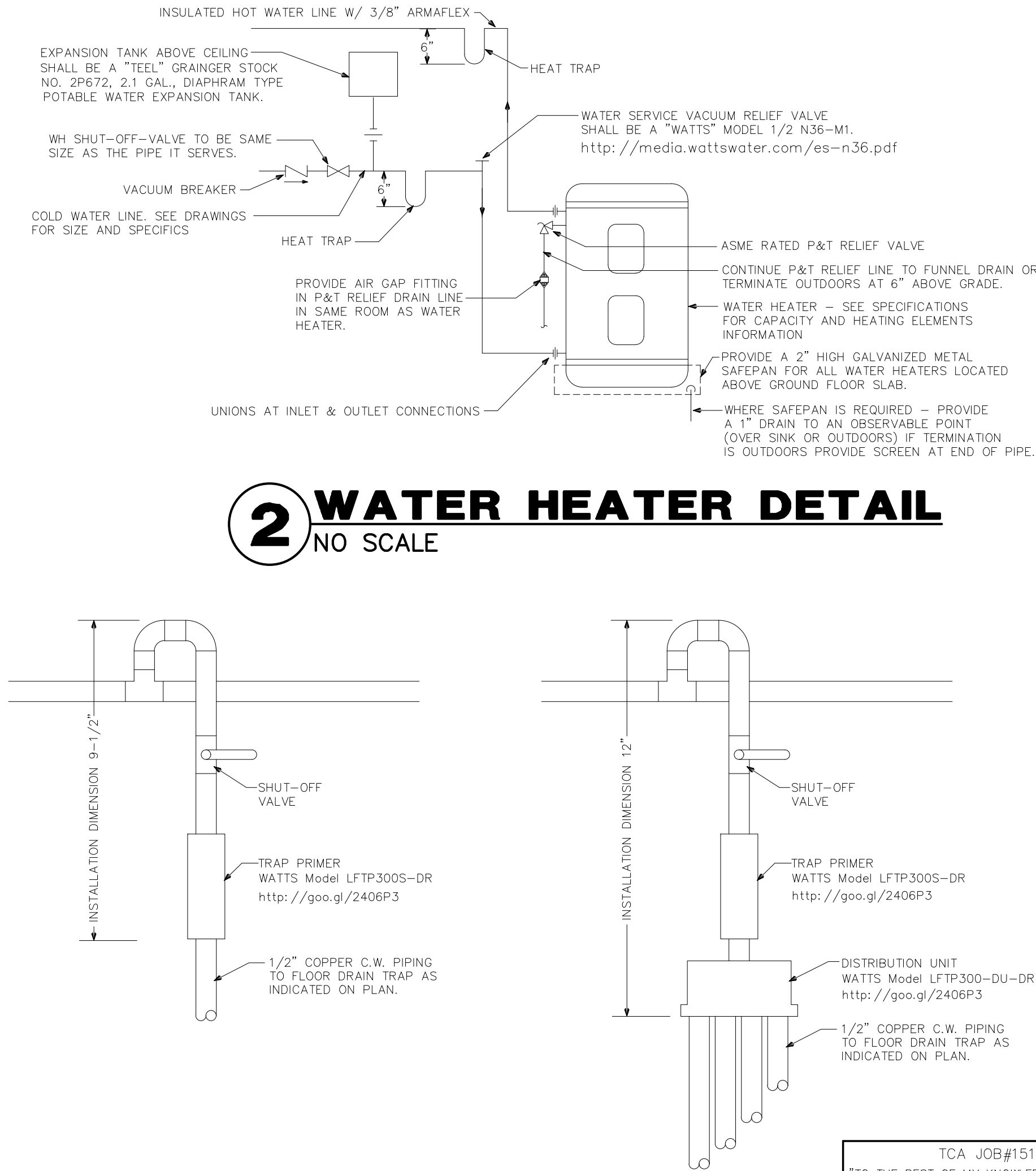
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| PLUMBING FIXTURE SCHEDULE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>P-1 (FLOOR MOUNTED FLUSH TANK WATER CLOSET)</b><br/>SHALL BE AN AMERICAN STANDARD MODEL 2462.016 CADET 1.6 GPF ELONGATED PRESSURE ASSISTED TOILET, VITREOUS CHINA, LOW-CONSUMPTION (1.6 GPF), ELONGATED BOWL, CLOSE-COUPLED FLUSHOMETER TANK, WITH RISE AND SHINE ELONGATED OPEN FRONT SEAT AND COVER AMERICAN STANDARD MODEL 5325.024 .<br/>* <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_2670.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_2670.pdf</a></p>                                                                                                                                                                                                                                                                                                                                                                                                | <p><b>P-13 (6" FLOOR DRAIN WITH TRAP SEAL)</b><br/>SHALL BE A JOSAM 30003-A SERIES COATED CAST IRON FLOOR DRAIN, 3"ø PIPE CONNECTION, 6"ø DRAIN TOP, STRAINER TYPE 6A, TWO-PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WEILOC INVERTIBLE NON-PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET AND ADJUSTABLE SATIN NIKALOY ROUND SUPER-FLO STRAINER.<br/>* <a href="http://www.josam.com/p/cast-iron-adjustable-round-top-floor-drain/30000-A">http://www.josam.com/p/cast-iron-adjustable-round-top-floor-drain/30000-A</a></p>                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p><b>P-2 (HANDICAPPED FLOOR MOUNTED FLUSH TANK WATER CLOSET)</b><br/>SHALL BE AN AMERICAN STANDARD MODEL 2467.016 CADET 1.6 GPF RIGHT HEIGHT ELONGATED PRESSURE ASSISTED TOILET, VITREOUS CHINA, LOW-CONSUMPTION (1.6 GPF), CLOSE-COUPLED FLUSHOMETER TANK WITH RISE AND SHINE ELONGATED OPEN FRONT SEAT AND COVER AMERICAN STANDARD MODEL 5325.024 .<br/>* <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_2669.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_2669.pdf</a></p>                                                                                                                                                                                                                                                                                                                                                                                        | <p><b>FLOOR DRAIN TRAP SEAL</b><br/>SHALL BE A 3"ø "SURE SEAL" MODEL SS3000 PREASSEMBLED INLINE FLOOR DRAIN TRAP SEALER, 5 PIECES: COMMEROIAL GRADE ABS PLASTIC HOUSING AND KEEPER PIN, PROPRIETARY NEOPRENE RUBBER DIAPHRAGM, WITH 2 SOFT RUBBER SEALING GASKETS, FLOOR RATING ASSE-1072 AF-GW.<br/>* <a href="http://www.thesuresseal.com/Portals/49321/docs/pitch_sheet_ss3000.pdf">http://www.thesuresseal.com/Portals/49321/docs/pitch_sheet_ss3000.pdf</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>P-3 (HANDICAPPED URINAL AND FLUSH VALVE)</b><br/>SHALL BE AN AMERICAN STANDARD WASHBROOM MODEL 6501.511 3/4" TOP SPUD, 1.0 GPF, URINAL INCLUDES AMERICAN STANDARD MANUAL FLUSH VALVE MODEL 6045.102 FOR 3/4" TOP SPUD URINAL.<br/>* <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4875.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4875.pdf</a><br/>* <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4085.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4085.pdf</a></p>                                                                                                                                                                                                                                                                                                                   | <p><b>P-14 (FLOOR SINK W/SEDIMENT BUCKET)</b><br/>SHALL BE A JOSAM 49340A-3-31 SERIES SQUARE CAST IRON 8" DEEP SUPER-FLO-SEPTOR FLOOR SINK WITH PORC-COATED INTERIOR, DOUBLE DRAINAGE FLANGE WITH WEEPHOLES, BOTTOM OUTLET, ALUMINIUM INTERNAL DOME STRAINER, AND CAST IRON, NON-TRAFFIC, PORC-COATED, ANTI-TILTING GRATE, WITH HALF GRATE AND ALUMINIUM SEDIMENT BUCKET.<br/>* <a href="http://www.josam.com/catalog/JOS/pl=FS/49340A">http://www.josam.com/catalog/JOS/pl=FS/49340A</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <p><b>P-4 (WALL HUNG LAVATORY)</b><br/>SHALL BE AN AMERICAN STANDARD MISSOURI LAVATORY MODEL 0436.004US, VITREOUS CHINA, WALL MOUNT WITH CONCEALED ARMS SUPPORT, FAUCET SHALL BE A MONTERREY MODEL 5502.140 W/STANDARD 2-1/4" LEVER HANDLES.<br/>* <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4486.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4486.pdf</a><br/>* <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_439.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_439.pdf</a></p>                                                                                                                                                                                                                                                                                                            | <p><b>P-15 (HUB DRAIN - INDIRECT WASTE FUNNEL)</b><br/>SHALL BE A "ZURN" MODEL Z236, 2" PIPE CONNECTION, DURA-COATED CAST IRON BODY AND BOTTOM OUTLET, CONTRACTOR SHALL VERIFY FINAL HEIGHT OF FUNNEL WITH EQUIPMENT THAT IS UTILIZING FUNNEL DRAIN AND VERIFY PROPER CLEARANCE PRIOR TO CONSTRUCTION. COORDINATE WITH EQUIPMENT MANUFACTURER.<br/>* <a href="http://content.zurn.com/web_documents/pdfs/specsheets/z326.pdf">http://content.zurn.com/web_documents/pdfs/specsheets/z326.pdf</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>P-5 (HANDICAPPED WALL HUNG LAVATORY)</b><br/>SHALL BE AN AMERICAN STANDARD MISSOURI LAVATORY MODEL 0436.004US, VITREOUS CHINA, WALL MOUNT WITH CONCEALED ARMS SUPPORT, PROVIDE AN AMERICAN STANDARD MONTERREY MODEL 6531.170 CENTERSET FAUCET WITH 4" WRIST BLADE HANDLES, WATER PIPING AND P-TRAP SHALL BE COVERED WITH AN UNDERSINK PROTECTIVE PIPE COVER KIT BY TRUEBRO (HTTP://WWW.TRUEBRO.COM) OR APPROVED EQUAL.<br/>* <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4486.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_4486.pdf</a><br/>* <a href="http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_426.pdf">http://www.americanstandard-us.com/assets/documents/amstd/spec/SpecSheet_426.pdf</a></p>                                                                                                                            | <p><b>P-16 (16"x6" TRENCH DRAIN)</b><br/>SHALL BE A "ZURN" MODEL Z806 6" FLO-THRU TRENCH SYSTEM - ZURN Z806 6" WIDE PRE-SLOPED TRENCH DRAINAGE SYSTEM, GLASS-FILLED POLYESTER FIBERGLASS DRAIN CHANNEL WITH .75% BOTTOM SLOPE, ALL SECTIONS ARE MODULAR 10-FOOT LENGTHS OR CUSTOM CUT TO FIT WITH INTERLOCKING ENDS, COMPLETE WITH HEAVY-DUTY, DURA-COATED STEEL FRAME W/ANCHOR STUDS AT SURFACE, COMBINATION ANCHOR TABS/LEVELING DEVICES AT APPROPRIATE LOCATIONS AND HEAVY-DUTY CAST IRON GRATE W/ LOCKDOWN, GRATE SHALL BE STANDARD WEIGHT DUCTILE IRON, TRENCH DRAIN INSTALLATION INSTRUCTION FOUND HERE:<br/>* <a href="http://content.zurn.com/web_documents/pdfs/specsheets/z806.pdf">http://content.zurn.com/web_documents/pdfs/specsheets/z806.pdf</a><br/>* <a href="http://content.zurn.com/web_documents/pdfs/installation/i1531.pdf">http://content.zurn.com/web_documents/pdfs/installation/i1531.pdf</a></p>               |
| <p><b>P-6 (STAINLESS STEEL 3 COMPARTMENT SINK)</b><br/>SHALL BE A "JUST" MODEL SB-345-24RL (12/14) STAINLESS STEEL 3 COMPARTMENT SINK 18" SIDE DRAIN BOARDS, CONSTRUCTED OF 14 GAUGE TYPE 304, 18-8 STAINLESS STEEL, INTERIOR SURFACES POLISHED WITH A NON-POROUS HAND-BLENDED JUST FINISH, EXPOSED EXTERIOR SURFACES TO HAVE A BRUSH FINISH, SUPPORTED ON (4) 1-5/8" O.D. STAINLESS STEEL TUBULAR LEGS WITH STAINLESS STEEL FULLY ENCLOSED GUSSETS AND ADJUSTABLE BULLET FEET, DRAIN PUNCH #35 CENTERED FOR JUST J-35 UNLESS OTHERWISE SPECIFIED, FAUCETS SHALL BE "T&amp;S BRASS AND BRONZE WORKS" MODEL B-0231, (TYPICAL OF 2)<br/>* SINK BOWLS A MIN. OF 21"Wx18"Lx14"D.<br/>* DRAIN BOARDS A MIN. OF 24"x24"<br/>* <a href="http://www.justmfg.com/PDF/B-24.pdf">http://www.justmfg.com/PDF/B-24.pdf</a><br/>* <a href="http://catalog.tbrass.com/specs/B-0200/B-0231.pdf">http://catalog.tbrass.com/specs/B-0200/B-0231.pdf</a></p> | <p><b>P-17 (20"x6" TRENCH DRAIN CATCH BASIN)</b><br/>SHALL BE A "ZURN" MODEL Z817-6-HDS FLO-THRU CATCH BASIN - 6" x 20" - ZURN Z817 CATCH BASIN (SPECIFY SIZE), POLYESTER GLASS-FILLED FIBERGLASS REINFORCED BODY, COMPLETE WITH HEAVY-DUTY, DURA-COATED STEEL FRAME WITH ANCHOR STUDS AT SURFACE AND HEAVY-DUTY CAST IRON GRATE, CATCH BASIN INSTALLATION INSTRUCTION FOUND HERE:<br/>* <a href="http://content.zurn.com/web_documents/pdfs/specsheets/Z817-6-HDS.pdf">http://content.zurn.com/web_documents/pdfs/specsheets/Z817-6-HDS.pdf</a></p>                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>P-7 (HOSE BIBB - NON-FREEZE HYDRANT WITH LOCK COVER)</b><br/>SHALL BE A "ZURN" Z1300 ENCASED ECOLOTROL, ANTI-SIPHON, AUTOMATIC DRAINING, NON-FREEZE WALL HYDRANT COMPLETE WITH INTEGRAL BACKFLOW PREVENTOR, COPPER PIPING, ALL BRONZE INTERIOR PARTS, NON-COMBINATION 3/4 MALE PIPE THREAD INLET CONNECTION STANDARD, REGULARLY FURNISHED WITH 3/4 HOSE CONNECTION, CHROME-PLATED ROUGH CAST BRONZE BOX AND HINGED COVER, INCLUDES OPERATING KEY.<br/>* <a href="http://content.zurn.com/web_documents/pdfs/specsheets/58867.pdf">http://content.zurn.com/web_documents/pdfs/specsheets/58867.pdf</a></p>                                                                                                                                                                                                                                                                                                                           | <p><b>P-18 (INSTA-HOT WATER HEATER BELOW LAVATORY)</b><br/>WATER HEATER SHALL BE A "CHRONOMITE" MODEL SR-15L/277, 4.1 KW TANKLESS WATER HEATER @ 277V/1ø, 15 AMPS.<br/>* <a href="http://www.chronomite.com/uploads/filelibrary/InstantFlowSRtoFlow-IFSRLF.PDF">http://www.chronomite.com/uploads/filelibrary/InstantFlowSRtoFlow-IFSRLF.PDF</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>P-8 (HANDICAPPED ELECTRIC WATER COOLER COMBINATION H/L/O &amp; WALL CARRIER)</b><br/>SHALL BE AN ELKAY MODEL EMABFTLBC, SPLIT LEVEL TWO STATION WATER COOLER WITH BARRIER FREE ACCESS, MODEL EMABFTLBC, 8.8 GPH, 4.0 FLA AT 120 VOLT, WITH ACCESSORY IN-WALL CARRIER ELKAY MODEL MLP200.<br/>H/L/O WATER COOLER: * <a href="http://www.elkay.com/emabftlbc">http://www.elkay.com/emabftlbc</a><br/>IN-WALL CARRIER SYSTEM: * <a href="http://www.elkay.com/mlp200">http://www.elkay.com/mlp200</a><br/>WALL CARRIER INSTALLATION: * <a href="http://goo.gl/P4tct">http://goo.gl/P4tct</a></p>                                                                                                                                                                                                                                                                                                                                       | <p><b>P-19 (JUNIOR WATER HEATER)</b><br/>WATER HEATER SHALL BE A LOCHINVAR MODEL JRC020FS, 20 GALLON GLASSLINED STORAGE TANK, JUNIOR TYPE WATER HEATER WITH (1) - 1.6 KW ELECTRIC ELEMENT AT 115 VOLTS, SINGLE PHASE INCOMING POWER, 3 YEAR LIMITED WARRANTY ON STORAGE TANK AGAINST TANK FAILURE, WATER HEATER SHALL MEET OR EXCEED ALL APPLICABLE SECTIONS OF ASHRAE STANDARD 90-90A AND NAECA REQUIREMENTS FOR ENERGY CONSERVATION.<br/>* <a href="http://lochinvar.com/_linefiles/JRE-06.pdf">http://lochinvar.com/_linefiles/JRE-06.pdf</a></p>                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>P-9 (BOTTLE FILLING STATION WITH SINGLE ADA COOLER &amp; WALL CARRIER)</b><br/>SHALL BE AN ELKAY MODEL LZ58WSLP, BOTTLE FILLING STATION, 8.0 GPH, 4.2 FLA AT 120 VOLT, WITH ACCESSORY IN-WALL CARRIER ELKAY MODEL MLP100.<br/>H/L/O WATER COOLER: * <a href="http://www.elkay.com/drinking-solutions/lz58wslp">http://www.elkay.com/drinking-solutions/lz58wslp</a><br/>IN-WALL CARRIER SYSTEM: * <a href="http://www.elkay.com/mlp100">http://www.elkay.com/mlp100</a><br/>WALL CARRIER INSTALLATION: * <a href="http://goo.gl/2U4xd9">http://goo.gl/2U4xd9</a></p>                                                                                                                                                                                                                                                                                                                                                                | <p><b>P-20 (JUNIOR WATER HEATER)</b><br/>WATER HEATER SHALL BE A LOCHINVAR MODEL JRA040KS, 40 GALLON GLASSLINED STORAGE TANK, JUNIOR TYPE WATER HEATER WITH (1) - 1.6 KW ELECTRIC ELEMENT AT 115 VOLTS, SINGLE PHASE INCOMING POWER, 3 YEAR LIMITED WARRANTY ON STORAGE TANK AGAINST TANK FAILURE, WATER HEATER SHALL MEET OR EXCEED ALL APPLICABLE SECTIONS OF ASHRAE STANDARD 90-90A AND NAECA REQUIREMENTS FOR ENERGY CONSERVATION.<br/>* <a href="http://lochinvar.com/_linefiles/JRE-06.pdf">http://lochinvar.com/_linefiles/JRE-06.pdf</a></p>                                                                                                                                                                                                                                                                                                                                                                                       |
| <p><b>P-10 (SINGLE BOWL STAINLESS STEEL SINK)</b><br/>SHALL BE A "JUST" MODEL SLF-2125-A-GR, 21"x35"x8" SEAMLESS DIE-DRAWN CONSTRUCTION OF TYPE 304, 18-8 STAINLESS STEEL, INTERIOR AND TOP SURFACES POLISHED TO A NONPOROUS HAND-BLENDED JUST FINISHWITH HIGHLIGHTED BOWL RIM, FULLY COATED UNDERSIDE INSULATED FOR SOUND AND REDUCES CONDENSATION, STRAIGHT-SIDED COMPARTMENT WITH RADIUS CORNERS PROVIDES GREATER CAPACITY, SELF-RIMMING TOP MOUNT GRIP-RIM PLUS WITH STAINLESS STEEL MOUNTING CHANNELS, CONFORMS TO ASME/ANSI A112.19.3M, CERTIFIED CONFORMANCE WITH ASME A112.19.3/CSA B45.4, FAUCET SHALL BE A "JUST" MODEL JWF-221.<br/>* <a href="http://www.justmfg.com/PDF/SLF2125A.pdf">http://www.justmfg.com/PDF/SLF2125A.pdf</a><br/>* <a href="http://www.justmfg.com/PDF/7-219.pdf">http://www.justmfg.com/PDF/7-219.pdf</a></p>                                                                                          | <p><b>P-21 (7" FLOOR DRAIN WITH TRAP PRIMER)</b><br/>SHALL BE A JOSAM 30004-A-50 SERIES COATED CAST IRON FLOOR DRAIN WITH 1/2" TRAP PRIMER, 4"ø PIPE CONNECTION, 7"ø DRAIN TOP, STRAINER TYPE 6A, TWO-PIECE BODY WITH DOUBLE DRAINAGE FLANGE, WEILOC INVERTIBLE NON-PUNCTURING FLASHING COLLAR, WEEPHOLES, BOTTOM OUTLET AND ADJUSTABLE SATIN NIKALOY ROUND SUPER-FLO STRAINER.<br/>* <a href="http://www.josam.com/p/cast-iron-adjustable-round-top-floor-drain/30000-A">http://www.josam.com/p/cast-iron-adjustable-round-top-floor-drain/30000-A</a></p>                                                                                                                                                                                                                                                                                                                                                                                |
| <p><b>P-11 (HANDICAPPED SINGLE BOWL STAINLESS STEEL SINK)</b><br/>SHALL BE A "JUST" MODEL SL-ADA-17519-A-GR, 17-1/2"x19"x6-1/2", SINGLE BOWL, SEAMLESS DIE-DRAWN CONSTRUCTION OF TYPE 304, 18-8 STAINLESS STEEL, INTERIOR AND TOP SURFACES POLISHED TO A NONPOROUS HAND-BLENDED JUST FINISH WITH HIGHLIGHTED BOWL RIM, FULLY COATED UNDERSIDE INSULATED FOR SOUND AND REDUCES CONDENSATION, STRAIGHT-SIDED COMPARTMENT WITH RADIUS CORNERS PROVIDES GREATER CAPACITY, SELF-RIMMING TOP MOUNT GRIP-RIM PLUS WITH STAINLESS STEEL MOUNTING CHANNELS, CONFORMS TO ASME/ANSI A112.19.3M, CERTIFIED CONFORMANCE WITH ASME A112.19.3/CSA B45.4, FAUCET SHALL BE A "JUST" MODEL J-1174-KS WITH 4" WRIST BLADE HANDLES.<br/>* <a href="http://www.justmfg.com/PDF/SLAD17519A.pdf">http://www.justmfg.com/PDF/SLAD17519A.pdf</a><br/>* <a href="http://www.justmfg.com/PDF/7-29.pdf">http://www.justmfg.com/PDF/7-29.pdf</a></p>                   | <p><b>P-22 (TRAP PRIMER)</b><br/>SHALL BE A WATTS MODEL LFTP300S-DR 1/2" TRAP PRIMER.<br/>* <a href="http://goo.gl/2406P3">http://goo.gl/2406P3</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <p><b>P-12 (WATER CONNECTION BOX)</b><br/>SHALL BE A HIGH QUALITY CONNECTION BOX AS SPECIFIED ON PLUMBINGSUPPLY.COM LOCATED ON THIS PAGE "http://www.plumbingsupply.com/ceemaker-outlet-boxes.html" SHALL INCLUDE 2 SUPPORT BRACKETS, HIGH IMPACT POLYSTYRENE, 1/4" BRASS BALL VALVE WITH 1/2" SWEAT CONNECTION, OR APPROVED EQUAL.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | <p><b>P-23 (TRAP PRIMER W/4 PIPE DISTRIBUTION UNIT)</b><br/>SHALL BE A WATTS MODEL LFTP300S-DR 1/2" TRAP PRIMER.<br/>* <a href="http://goo.gl/2406P3">http://goo.gl/2406P3</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <p><b>P-13 (WASHDOWN HOSE REEL)</b><br/>WALL MOUNTED HOSE REEL SHALL BE A "HANNA" SERIES N800 MODEL N818-25-26-10.5B WITH 50' OF 1" HOSE CAPACITY, 1" 50' HOSE SHALL BE "FLEXTRAL" MODEL AR30 (HANNAY PART # 9970.0043). SPRAY NOZZLE SHALL BE A "STRAHMANN" M-70 BRONZE SERIES SPRAY NOZZLE (PROVIDE 1" HOSE TO SPRAY NOZZLE ADAPTOR), * OR APPROVED EQUAL.<br/>* HOSE REEL: <a href="http://www.hannay.com/PDF/hose.pdf">http://www.hannay.com/PDF/hose.pdf</a><br/>* 1" 50' HOSE: <a href="http://goo.gl/FIemY0">http://goo.gl/FIemY0</a><br/>* SPRAY NOZZLE: <a href="http://goo.gl/t5Xm0y">http://goo.gl/t5Xm0y</a></p>                                                                                                                                                                                                                                                                                                              | <p><b>P-24 (C.W. WASHDOWN HOSE REEL)</b><br/>WALL MOUNTED HOSE REEL SHALL BE A "HANNA" SERIES N800 MODEL N818-25-26-10.5B WITH 50' OF 1" HOSE CAPACITY, 1" 50' HOSE SHALL BE "FLEXTRAL" MODEL AR30 (HANNAY PART # 9970.0043). SPRAY NOZZLE SHALL BE A "STRAHMANN" M-70 BRONZE SERIES SPRAY NOZZLE (PROVIDE 1" HOSE TO SPRAY NOZZLE ADAPTOR), * OR APPROVED EQUAL.<br/>* HOSE REEL: <a href="http://www.hannay.com/PDF/hose.pdf">http://www.hannay.com/PDF/hose.pdf</a><br/>* 1" 50' HOSE: <a href="http://goo.gl/FIemY0">http://goo.gl/FIemY0</a><br/>* SPRAY NOZZLE: <a href="http://goo.gl/t5Xm0y">http://goo.gl/t5Xm0y</a></p>                                                                                                                                                                                                                                                                                                          |
| <p><b>P-25 (HOSE BIBB INTERIOR W/HANDWHEEL)</b><br/>SHALL BE A "WOODFORD" MODEL 101 ANTI-SIPHON WALL FAUCET.<br/>* <a href="http://www.wcmind.com/woodford/Wall_Faucet_Pages/Model-101.html">http://www.wcmind.com/woodford/Wall_Faucet_Pages/Model-101.html</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <p><b>P-26 (STAINLESS STEEL 2 COMPARTMENT SINK)</b><br/>SHALL BE A "JUST" MODEL NSF-230-24RL (12/14) STAINLESS STEEL 2 COMPARTMENT SINK WITH SIDE DRAIN BOARDS, 81"x24" - CONSTRUCTED OF 14 GAUGE TYPE 304, 18-8 STAINLESS STEEL, INTERIOR SURFACES POLISHED WITH A NON-POROUS HAND-BLENDED JUST FINISH, EXPOSED EXTERIOR SURFACES TO HAVE A BRUSH FINISH, SUPPORTED ON (4) 16 GAUGE 1 5/8" O.D. STAINLESS STEEL TUBULAR LEGS WITH STAINLESS STEEL FULLY ENCLOSED GUSSETS AND ADJUSTABLE BULLET FEET, DRAIN PUNCH #35 CENTERED FOR JUST J-35 UNLESS OTHERWISE SPECIFIED, FAUCETS SHALL BE "T&amp;S BRASS AND BRONZE WORKS" MODEL B-0231.<br/>* SINK BOWLS A MIN. OF 21"Wx18"Lx14"D. * DRAIN BOARDS A MIN. OF 24"x24"<br/>* <a href="http://www.justmfg.com/PDF/B-8.pdf">http://www.justmfg.com/PDF/B-8.pdf</a><br/>* <a href="http://catalog.tbrass.com/specs/B-0200/B-0231.pdf">http://catalog.tbrass.com/specs/B-0200/B-0231.pdf</a></p> |
| <p><b>P-27 (STAINLESS STEEL HAND SINK WITH EMERGENCY EYE WASH COMBINATION)</b><br/>ADVANCE TABCO MODEL 7-PS-55 HAND SINK WITH EMERGENCY EYE WASH ATTACHMENT - 17 1/4" X 15 1/4".<br/>* <a href="http://goo.gl/qefq2">http://goo.gl/qefq2</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <p><b>P-28 (STAINLESS STEEL HAND SINK WITH EMERGENCY EYE WASH COMBINATION)</b><br/>ADVANCE TABCO MODEL 7-PS-55 HAND SINK WITH EMERGENCY EYE WASH ATTACHMENT - 17 1/4" X 15 1/4".<br/>* <a href="http://goo.gl/qefq2">http://goo.gl/qefq2</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| GENERAL PLUMBING NOTES |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.)                    | DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. REFER TO ARCHITECTURAL PLANS AND ELEVATIONS FOR EXACT LOCATION OF ALL PLUMBING FIXTURES, EQUIPMENT, ETC. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL ALL ITEMS REQUIRED FOR A COMPLETE AND ACCEPTABLE WORKING INSTALLATION. CONTRACTOR IS RESPONSIBLE TO INSTALL ALL FIXTURES AND EQUIPMENT IN STRICT COMPLIANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. THIS REQUIREMENT IS TO SUPERSEDE ANY DETAILS OR INFORMATION CONTAINED ON THESE DRAWINGS.                                                  |
| 2.)                    | ALL WORK AND MATERIALS SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL, STATE, AND ALL LOCAL CODES AND ORDINANCES HAVING JURISDICTION.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 3.)                    | THE PLUMBING CONTRACTOR SHALL VISIT THE SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL EXISTING CONDITIONS. ALL EXECUTION AND BACKFILL AS REQUIRED FOR THIS PHASE OF CONSTRUCTION SHALL BE A PART OF THIS CONTRACT.                                                                                                                                                                                                                                                                                                                                             |
| 4.)                    | ALL MATERIAL SHALL BE NEW.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| 5.)                    | ALL WORK SHALL BE PERFORMED BY A LICENSED PLUMBING CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/ARCHITECT.                                                                                                                                                                                                                                                                                                                                                                              |
| 6.)                    | ALL REQUIRED INSURANCE SHALL BE PROVIDED FOR PROTECTION AGAINST PUBLIC LIABILITY OR PROPERTY DAMAGE FOR THE DURATION OF THE WORK.                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| 7.)                    | THE PLUMBING CONTRACTOR SHALL SECURE AND PAY ALL PERMIT FEES, INSPECTIONS, AND TESTS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| 8.)                    | ALL WORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID INTERFERENCE WITH THE PROGRESS OF CONSTRUCTION.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 9.)                    | THE PLUMBING CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN (1) ONE YEAR FROM DATE OF ACCEPTANCE, CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED THEREBY.                                                                                                                                                                                                            |
| 10.)                   | VERIFY LOCATION, SIZE AND INVERTS OF ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION. ADVISE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 11.)                   | ALL FIXTURES SHALL BE PROVIDED WITH READILY ACCESSIBLE STOPS.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 12.)                   | ALL BELOW FLOOR SLAB WATER PIPING SHALL BE FLEXIBLE "TEMPRITE PE-X (CROSS-LINKED POLYETHYLENE)" INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: <a href="http://WWW.LUBRIZOL.COM">WWW.LUBRIZOL.COM</a> . ALL ABOVE SLAB WATER PIPING SHALL BE "FLOWGUARD GOLD CPVC" INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS FOUND HERE: <a href="http://WWW.FLOWGUARDGOLD.COM">WWW.FLOWGUARDGOLD.COM</a> . ALL WATER PIPING AS SPECIFIED OR APPROVED EQUAL. ALL WATER PIPING LARGER THAN 2" SHALL BE TYPE "L" COPPER AND TYPE "K" COPPER FOR 2 1/2" AND LARGER. |
| 13.)                   | SOIL, WASTES AND VENT PIPING FOR NON PRODUCTION AREAS SHALL BE PVC #40 DMV. WASTE AND VENT PIPING ABOVE SLAB SHALL BE PVC, IF APPROVED BY LOCAL AUTHORITIES HAVING JURISDICTION, OTHERWISE CAST IRON. PVC SHALL NOT BE INSTALLED IN A/C RETURN AIR PLENUM OR PENETRATE FIRE RATED WALLS OR FLOORS. ALL PRODUCTION AREA SOL, WASTES AND VENT PIPING WITHIN 24" OF THE SOIL LINES, AND ALL FITTINGS, SHALL BE SCHEDULE 40 CAST IRON.                                                                                                                                |
| 14.)                   | AIR CONDITIONING CONDENSATE DRAIN PIPING SHALL BE PVC #40 OR COPPER DRAIN WASTE AND BENT PIPE AND FITTINGS. INSULATE ALL CONDENSATE PIPING EXCEPT EXTERIOR PIPING. INSTALL ALL CONDENSATE PIPING FOR AIR CONDITIONING UNITS AS REQUIRED PER LOCAL CODES.                                                                                                                                                                                                                                                                                                          |
| 15.)                   | FURNISH AND INSTALL APPROVED WATER HAMMER ARRESTORS AT EACH GROUP OF FIXTURES. INSTALLATION OF WATER HAMMER ARRESTORS SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATIONS. PROVIDE AND INSTALL AN APPROVED WATER HAMMER ARRESTOR AT EACH FIXTURE OR DEVICE THAT HAS A SOLENOID WATER CONTROL VALVE.                                                                                                                                                                                                                                                                |
| 16.)                   | PROVIDE CHROME PLATED COMBINATION COVERED PLATE AND CLEANOUT PLUG FOR ALL WALL CLEANOUTS, JOSAM 58890.                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 17.)                   | INSULATE LINES AS FOLLOWS:<br>A.) 1-1/2" THICK ARMAFLEX PREFORMED INSULATION SHALL BE PROVIDED ON BOTH C.W. & H.W. WHEN PIPING IS LOCATED OUTSIDE OF THE INSULATED BUILDING ENVELOPE.<br>B.) 1-1/2" THICK ARMAFLEX PREFORMED INSULATION SHALL BE PROVIDED ON HW PIPING & H.W. RECIRC. PIPING, ONLY WHEN THERE IS A H.W. RECIRCULATING PIPING SYSTEM.<br>C.) CONDENSATE PIPING: 1/2" THICK ARMAFLEX PREFORMED OR APPROVED EQUAL.                                                                                                                                   |



## 1 TRAP PRIMER DETAILS

## 2 WATER HEATER DETAIL

TCA JOB#15103

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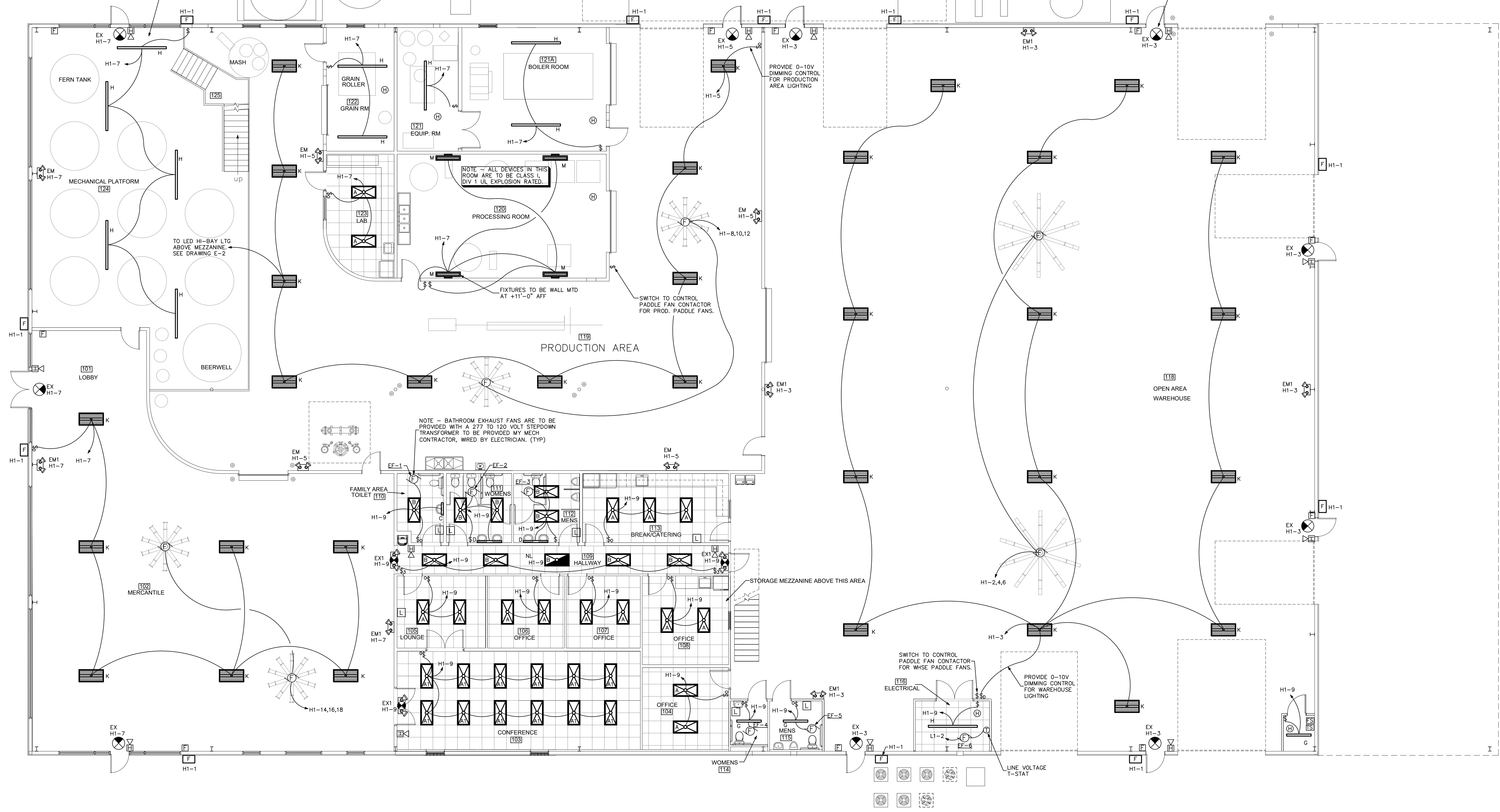
**TCA**

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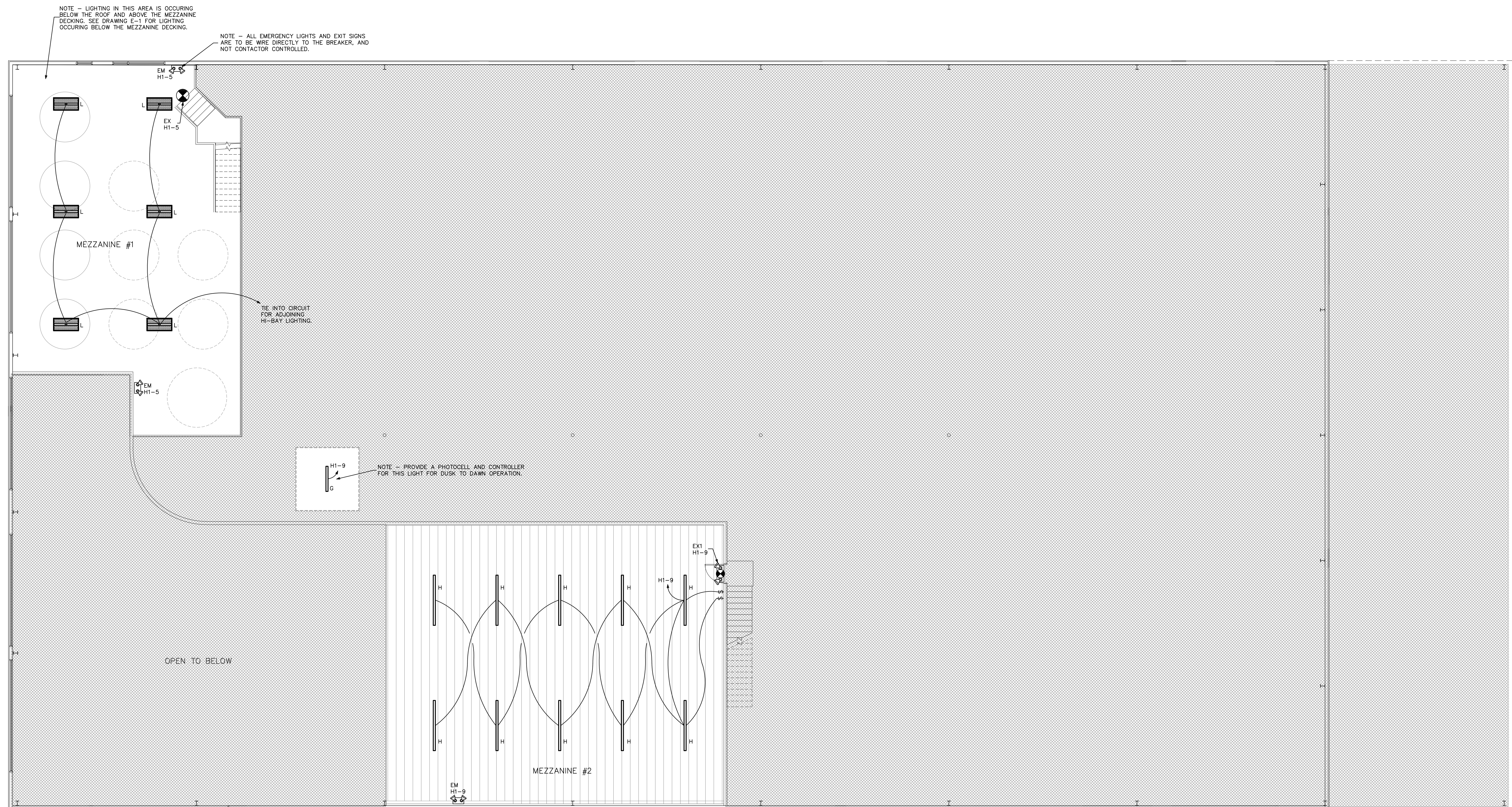


NOTE - LIGHTING IN THIS AREA IS OCCURRING BELOW THE MEZZANINE DECKING. FIXTURES ARE TO BE ATTACHED TO THE UNDERSIDE OF THE MEZZANINE STRUCTURE. SEE MEZZANINE PLAN FOR LIGHTING AT THE ROOF LEVEL.

NOTE - ALL EMERGENCY LIGHTS AND EXIT SIGNS ARE TO BE WIRE DIRECTLY TO THE BREAKER, AND NOT CONTACTOR CONTROLLED.



**1 FLOOR PLAN - LIGHTING**  
SCALE: 1/8"=1'-0"



# 1 MEZZANINE FLOOR PLAN - ELECTRICAL

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

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| MOTOR CNTR MCC DIVERSIFICATION CALCULATIONS |          |
|---------------------------------------------|----------|
| MOTOR LOADS AT 100%                         | - 138198 |
| PLUS 25% OF THE LARGEST MOTOR               | - 2909   |
| MISC CONTINUOUS LOADS AT 125%               |          |
| 10000 X 1.25                                | - 12500  |
| TOTAL DIVERSIFIED PANEL LOAD                | - 153607 |
| LOAD AT 277/480V/3-PHASE/4-WIRE             | - 184.8A |

SHADED AREAS ARE  
TO BE VFD BUCKETS

| PANEL H1 DIVERSIFICATION CALCULATIONS |                |        |  |
|---------------------------------------|----------------|--------|--|
| LIGHTING -                            | 12252 X 125% - | 15315  |  |
| HVAC LOAD AT 100% -                   |                | 96147  |  |
| MOTOR LOADS AT 100% -                 |                | 23600  |  |
| MISC CONTINUOUS LOADS AT 125%         |                |        |  |
| 564 X 1.25                            | -              | 705    |  |
| -----                                 |                |        |  |
| TOTAL DIVERSIFIED PANEL LOAD          |                | 135767 |  |
| LOAD AT 277/480V/3-PHASE/4-WIRE       |                | 163.4A |  |

| PANEL L1 DIVERSIFICATION CALCULATIONS |  |        |
|---------------------------------------|--|--------|
| RECEPTACLES (80) - 14400 VA TOTAL     |  |        |
| FIRST 10 KVA AT 100% -                |  | 10000  |
| REMAINDER AT 50% -                    |  | 2200   |
| HVAC LOAD AT 100% -                   |  | 2496   |
| MOTOR LOADS AT 100% -                 |  | 11143  |
| MISC NON-CONTINUOUS LOADS AT 100% -   |  | 38868  |
| TOTAL DIVERSIFIED PANEL LOAD -        |  | 64707  |
| LOAD AT 120/208V/3-PHASE/4-WIRE -     |  | 179.7A |

| PANEL MDP DIVERSIFICATION CALCULATIONS |              |  |        |
|----------------------------------------|--------------|--|--------|
| RECEPTACLES (80) - 14400 VA TOTAL      |              |  |        |
| FIRST 10 KVA AT 100%                   |              |  | 10000  |
| REMAINDER AT 50%                       |              |  | 2200   |
| LIGHTING -                             | 12252 X 125% |  | 15315  |
| HVAC LOAD AT 100%                      |              |  | 84681  |
| MOTOR LOADS AT 100%                    |              |  | 340637 |
| P. 25% OF THE LARGEST MOTOR            |              |  | 189005 |
| MISC NON-CONTINUOUS LOADS AT 100%      |              |  | 38868  |
| MISC CONTINUOUS LOADS AT 125%          |              |  |        |
| 10564 X 1.25                           |              |  | 13205  |
| TOTAL DIVERSIFIED PANEL LOAD           |              |  | 523811 |
| LOAD AT 277/480V/3-PHASE/4-WIRE        |              |  | 630.3A |

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