# EATONVILLE TOWN HALL ROOF IMPROVEMENTS



GRAPHIC SYMBOL KEY

4/12/2023 10:34:23 AM

307 EAST KENNEDY BLVD. EATONVILLE, FLORIDA 32751

\*\*BID SET\*\*

and all permit and inspection costs.

## DRAWING INDEX Current Revision NUMBER SHEET TITLE **Current Revision** GENERAL INFORMATION G000 COVER ARCHITECTURE EXISTING ROOF PLAN ROOF PLAN DETAILS - ROOF 10-MECHANICAL MECHANICAL LEGEND MECHANICAL SPECIFICATIONS MECHANICAL ROOF DEMO PLAN MECHANICAL ROOF PLAN MECHANICAL DETAILS

ABBREVIATIONS

NIC - NOT IN CONTRACT

- ON CENTER

- NOT TO SCALE

- PRESERVATIVE

REINF - REINFORCE(ED)(ING)

REP - REPRESENTATIVE

SQUARE FEET

- STAINLESS STEEL

- TRUSS GIRDER

- TOP OF JOIST

- TOP OF STEEL

VCT - VINYL COMPOSITION

- TYPICAL

UNO - UNLESS NOTED

- WITH

W/O - WITHOUT

- TOP OF MASONRY

- TOUNGE AND GROOVE

- VINYL WALL COVERING

SPECS - SPECIFICATION(S)

STRUCT - STRUCTURAL

- PLATE/PROPERTY LINE

- PROJECT MANAGER

- NOMINAL

O/C

TREATED

RAD - RADIUS

STL - STEEL

TG

T&G

T/JST

TYP

TILE

W/

VWC

OTHERWISE

VT - TILE

REQD - REQUIRED

TEMP - TEMPERED

### - EXPANSION JOINT - ACOUSTICAL CEILING TILE - EACH WAY - ADJUSTABLE - EXTERIOR **VICINITY MAP** AFF - ABOVE FINISH FLOOR FD - FLOOR DRAIN - FIRE EXTINGUISHER - ALTERNATE ALUM - ALUMINUM - FINISH ARCH - ARCHITECTURAL - FACTORY MUTUAL - BAR JOIST - FIRE RATED BLDG - BUILDING - FIRE RETARDANT TREATED - BEAM FS - FLOOR SINK - BEARING - FIELD VERIFY FTG - FOOTING - BRICK - CENTER TO CENTER - GAUGE - CONTROL JOINT - GALVANIZED CKT CLG - CIRCUIT - GUARD POST - GYPSUM WALL BOARD - CEILING COL - COLUMN - HANDICAPPED - HOLLOW METAL **CONC - CONCRETE CONST - CONSTRUCTION** - HOUR CONT - CONTINUOUS - HEIGHT HVAC - HEATING, VENTILATING, AIR **CONTR - CONTRACTOR** - CENTER LINE CONDITIONING - CONCRETE MASONRY UNIT INSUL - INSULATION CRS - JUNCTION BOX - COURSE DEM - DEMISING - LINEAL FEET - DIAMETER - LONG DIM - LONG LEG HORIZONTAL - DIMENSION - DOWN - DOWNSPOUT LLV - LONG LEG VERTICAL - DRYWALL MASY - MASONRY MFR - MANUFACTURER **DWGS - DRAWINGS** - EACH FACE MECH - MECHANCIAL ELEC - ELECTRICAL MO - MASONRY OPENING EQ - EQUAL - METAL

	<u>IBD-Arch</u>	<b>Structural</b>	TBD-Struct Engineer	TBD-Mec	ch Engineer	<u>Electrical</u>	TBD-Elec Engineer
Contact:	TBD-Arch Contact	Contact:	TBD-Struct Contact	Contact:	TBD-Mech Contact	Contact:	TBD-Elec Contact
Email:	TBD-Arch Email	Email:	TBD-Struct Email	Email:	TBD-Mech Email	Email:	TBD-Elec Email
Address:	Architectural ADDRESS	Address:	Structural ADDRESS	Address:	Mechanical ADDRESS	Address:	Electrical ADDRESS
	CITY, STATE, ZIPCODE		CITY, STATE, ZIPCODE		CITY, STATE, ZIPCODE		CITY, STATE, ZIPCODE
Phone:	TBD-Arch Phone	Phone:	TBD-Struct Phone	Phone:	TBD-Mech Phone	Phone:	TBD-Elec Phone

## **GENERAL NOTES**

1. The required flame spread or smoke developed index of surfaces in existing buildings may be achieved by application of approved fire-retardant coatings & shall comply with NFPA 703 (IFC 803.4).

2. All electrical work shall conform to local codes, the requirements of the national electrical code, & NFPA 72.3. The scope of work shall include furnishing of all materials, equipment, tools, labor and services necessary for delivery of a

Contractors shall not scale these drawings for construction purposes. In the event of omission of necessary dimensions or information, Contractor shall notify the architect promptly and descriptively. Figured and calculated dimension shall take precedence over scaled measurements. Detailed drawings and larger scale drawings shall take precedence over smaller scaled drawings. All plan details and wall sections are assumed to be typical conditions unless detailed or noted otherwise.
 All Finished Floor Elevations (F.F.E.) RE: to architectural drawings only. RE: Civil drawings for relationship to project

6. GC shall verify all dimensions, conditions, and grades at job site, before and during construction. All contractors shall coordinate their work with other trades and report discrepancies, prior to their construction, to the architect for review and clarification and/or action.
7. GC shall become familiar with and verify size, locations, and characteristics of all equipment to be furnished with manufacturers

or suppliers before beginning construction.

8. GC shall verify size and locations of all openings for mechanical and electrical equipment and related work with contractors involved and equipment to be furnished. For construction details not shown, GC shall use the manufacturers' standard details or

approved shop drawings / data sheets, in accordance with the project specifications and design intent.

9. GC shall coordinate all trades, sub-contractors, etc. with the plumbing, mechanical, electrical, designs of the document set prior to proceeding with the work and shall notify the architect promptly and descriptively of any discrepancies or conflicts. All discrepancies shall be resolved prior to the contractor proceeding with the work.

10. Additional work, if applicable, Must be authorized in writing by the owner AND architect, with a formal Request For Information (RFI) process. GC shall issue an RFI to the architect promptly and descriptively for review and response by the architect. If the clarification and/or supplemental information involves an adjustment to the contract sum, the architect shall coordinate with the owner and issue a work change proposal request to the GC to obtain price quotations needed for negotiating changes in the construction contract for construction.

11. All products used for construction and utilized during construction, shall be asbestos free.12. GC shall verify that all work will conform to all local, state, and national building codes, including accessibility requirements. GC

shall perform all work in conformity with all laws/regulations/codes having jurisdiction, whether or not such work is specifically shown in the document set, including all seismic, High-Velocity wind zone, or other applicable requirements.

13. GC shall review and become familiar with all existing conditions prior to commencing the work. Any conditions not documented as part of the full document set or observed to be different from the full document set, shall be reported to the architect and owner.

as part of the full document set or observed to be different from the full document set, shall be reported to the architect and owner promptly and descriptively, prior to beginning construction.

14. GC shall be responsible for the quality of workmanship and compliance with the design intent of the document set. GC shall

correct all errors and deviations as requested by the owner.

15. GC shall maintain a fire response plan and equipment as required per the Fire Marshal having jurisdiction.

16. GC shall contact any and all relevant local utilities to submit all applicable permit documents, qualifications, and required information, and shall be responsible for all fees associated with the permits, utility extensions, Tap-Ins, etc. GC shall promptly and descriptively provide the architect with all permit review comments from relevant agencies, municipalities and/or entities.

17. GC shall remove all debris, as a result of the work for this project, on a daily basis or as directed by the owner and/or owners representatives or agent. GC shall maintain a generally clean and organized work site and shall prevent effects from the work to areas outside the work area. Upon completion of the work, the job site, building interior, exterior areas, and all associated items and areas of the work, shall be thoroughly cleaned. The GC shall remove all rubble, tools, equipment, excess materials and items associated with the construction, from the premises. The project is to be provided in a perfectly clean condition.

18. Each sub-contractor is responsible to coordinate and schedule their work with the GC and all other contractors who's work may

Architect shall submit documents for permit plan review and owner review. The GC shall be responsible for obtaining the permits

18. Each sub-contractor is responsible to coordinate and schedule their work with the GC and all other contractors who's work may be affected.

19. Parking for the work by construction staff, contractors, consultants, etc. shall be limited to the areas designated. GC shall

coordinate with owner for parking locations.

20. GC shall maintain the area of work / construction site and associated work areas in a weather-tight fashion and secured

condition at all times. GC shall take all precautions necessary to maintain and secure the area of work.
21. GC shall inform the owner immediately upon discovery/encountering any and all hazardous materials.

## CODE AND BUILDING DATA

## **Project Scope**

THIS PROJECT CONSISTS OF REMOVAL OF EXISTING MODIFIED BITUMEN AND BALLASTED ROOFING MEMBRANE AND SUBSTRATE. EXISTING WOOD DECK AND STRUCTURE TO REMAIN, UNLESS NOTED OTHERWISE. THE PROJECT WILL INCLUDE ADDED TAPERED INSULATION ON ROOF WITH MECHANICALLY FASTENED PVC ROOF MEMBRANE. CLEANING AND PAINTING OF EXISTING METAL MANSARD ROOF AND RESTORATION OF ENTRY CANOPY CEILING. IN ADDITION THIS PROJECT WILL INCLUDE COMPLETE REPLACEMENT OF 4 ROOF TOP AND RELOCATION OF 2 ROOF TOP UNITS.

## **Building Codes**

Governing Jurisdiction: TOWN OF EATONVILLE

Building Code Edition: FLORIDA BUILDING CODE 7TH EDITION

Fire Code: FLORIDA FIRE PREVENTION CODE 7TH EDITION

Life Safety Code: NFPA 101, LIFE SAFETY CODE - FLORIDA AMENDED 7TH EDITION
Accessibility Code: FLORIDA BUILDING CODE 7TH EDITION
Plumbing Code Edition: FLORIDA BUILDING CODE 7TH EDITION

Mechanical Code Edition: FLORIDA BUILDING CODE 7TH EDITION

Electrical Code Edition: FLORIDA BUILDING CODE 7TH EDITION - CHAPTER 27

Additional Code Edition: ADDITIONAL CODE

Notice Of Acceptance: TBD

# Use and Occupancy Classification

(B) BUSINESS

# Construction Classification (TYPE)

V-B

## Occupancy Load Calculation

NOT APPLICABLE

## Florida Product Approvals

ROOF MEMBRANE FL 16036-R18

Designed: CPH
Drawn: JKM
Checked: BKS
Job No.: E6611
05/17/2023 © 2023

CONSTRUCTION

THIS SHEET NOT VALID FOR CONSTRUCTION WITHOUT COMPLETE SET OF PLANS. SEE GENERAL NOTES FOR MASTER LEGEND

A Full Service A & E Firm

CITY, STATE, ZIPCODE Ph:TBD-Office Phone

Plans Prepared By : CPH, CONSULTING LLC.

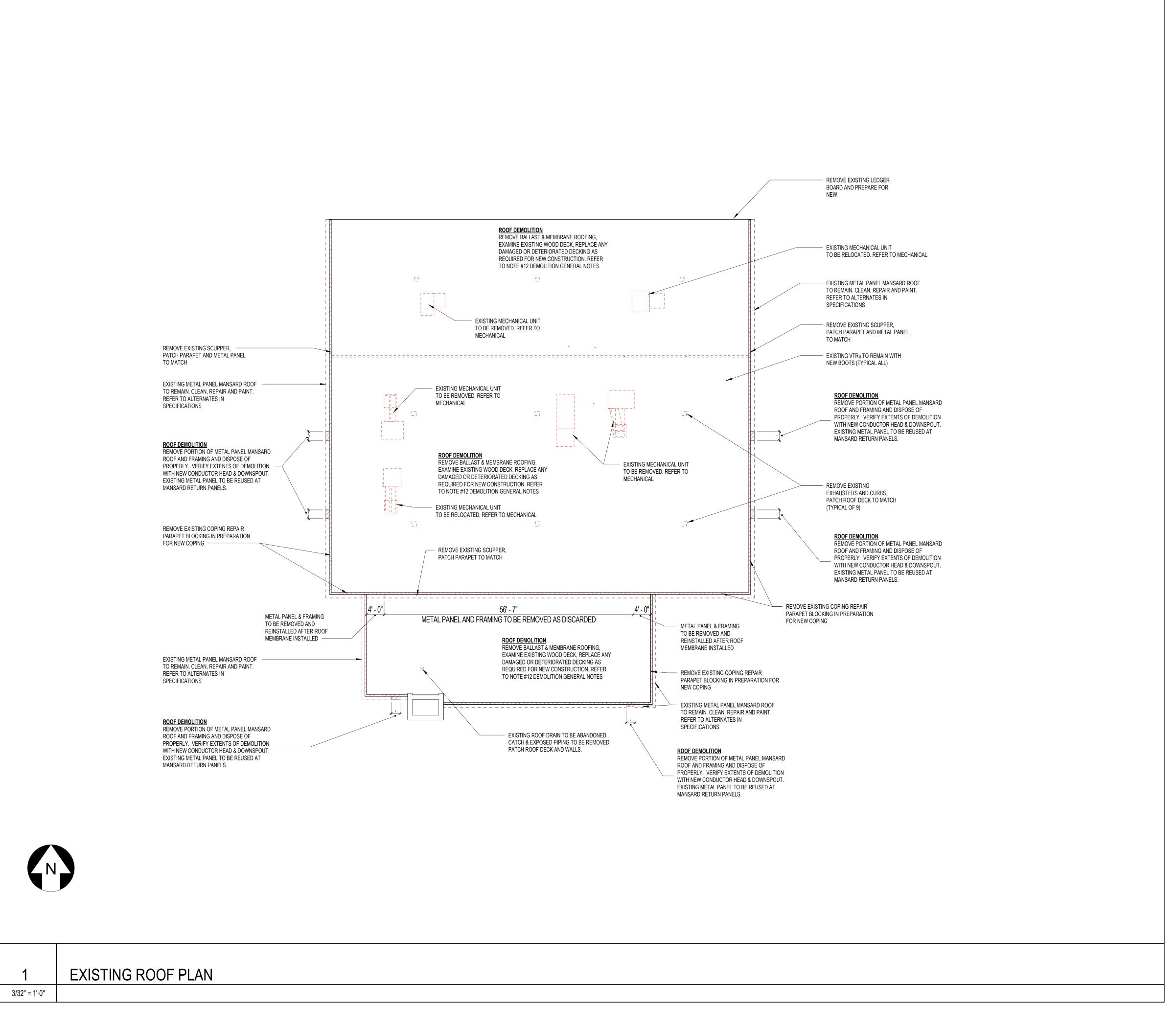
State of Florida Licenses: Architect No. AA2600926 Engineer No. 3215 Landscape No. LC0000298 Surveyor No. 7143

Architect of Record

TBD-Arch License

TBD-Arch

C:\Users\jmillard\Documents\E6611\_Eatonville town hall\_reroof\_jmillard1.rvt



## **DEMOLITION GENERAL NOTES**

- PRIOR TO DEMOLITION, CUTTING AND PATCHING, THE CONTRACTOR SHALL LOCATE AND DISCONNECT UTILITY SERVICES AND ELECTRICAL / MECHANICAL SYSTEMS, OR TEMPORARILY CAP OFF SUCH SERVICES TO THE AFFECTED AREAS. GIVE NOTICE TO, AND COORDINATE WITH UTILITY COMPANIES. OBTAIN WRITTEN APPROVAL FROM, AND COOPERATE WITH OTHER PARTIES WHO MAY BE AFFECTED BY INTERRUPTION OF SERVICES. ALL MEASUREMENTS INDICATED ON THE PLAN SHALL BE VERIFIED ON THE ACTUAL CONDITION. ANY
- DISCREPANCY IN THE MEASUREMENT SHALL BE REPORTED TO THE ARCHITECT BEFORE THE START OF
- 3 DO NOT SCALE DRAWINGS. ALL MEASUREMENTS INDICATED ON THE PLAN SHALL BE VERIFIED ON THE ACTUAL CONDITION. ANY DISCREPANCY IN THE MEASUREMENT SHALL BE REPORTED TO THE ARCHITECT BEFORE THE START OF DEMOLITION.
- 4A DEMOLITION IS TO BE EXECUTED SO AS NOT TO DISTURB EXISTING STRUCTURAL AND OTHER AREAS THAT ARE INTENDED TO REMAIN INTACT. VERIFY ALL CONSTRUCTION TO BE REMOVED THAT IS NOT INTEGRAL TO STRUCTURAL SYSTEM PRIOR TO DEMOLITION.
- 4B STRUCTURAL REQUIREMENTS: DO NOT CUT AND PATCH STRUCTURAL WORK IN A MANNER WHICH WILL REDUCE LOAD-CARRYING CAPACITY OR LOAD-DEFLECTION RATIO. WHERE STRUCTURAL WORK MUST BE CUT, PROVIDE ADEQUATE TEMPORARY SUPPORT (BRACING AND/OR SHORING) TO RESIST VERTICAL, LATERAL AND DYNAMIC LOADS IN THE ENTIRE TRIBUTARY AREA OF THE AFFECTED STRUCTURAL MEMBERS. WHERE REQUIRED, ENGAGE A LICENSED STRUCTURAL ENGINEER TO DESIGN SHORING / BRACING SYSTEMS AND JOINT OR CONNECTION
- ALL DIMENSIONS SHOWN AS EXISTING SHOULD BE FIELD VERIFIED BY CONTRACTOR PRIOR TO DEMOLITION. VERIFY ALL DEMOLITION WORK w/ NEW CONSTRUCTION & INSTALLATION DRAWINGS PRIOR TO BEGINNING
- 6A DEMOLITION CONTRACTOR TO COORDINATE & REVIEW ALL CONSTRUCTION DOCUMENTS & DETERMINE THE EXTENT OF DEMOLITION WORK & BECOME FAMILIAR WITH THEM THOROUGHLY BEFORE PERFORMING ANY DEMOLITION WORK. BY THE ACT OF STARTING DEMOLITION, THE CONTRACTOR WILL BE DEEMED TO HAVE COMPLIED WITH THE FOREGOING, TO HAVE ACCEPTED SUCH CONDITIONS, AND TO HAVE MADE THE NECESSARY ALLOWANCES IN PREPARING HIS BID.
- VISUAL REQUIREMENTS: DO NOT CUT AND PATCH WORK IN A MANNER WHICH WILL RESULT IN LESSENING OF THE AESTHETIC QUALITIES OF THE BUILDING OR SITE, OR THAT WILL RESULT IN VISUAL EVIDENCE OF CUT AND PATCH WORK. WHERE REQUIRED, EXTEND FINISH MATERIALS OVER ENTIRE UNBROKEN SURFACE AREAS AFFECTED BY CUT AND PATCH WORK. REMOVE AND REPLACE CUT AND PATCH WORK WHICH DOES NOT MEET VISUAL REQUIREMENTS.
- PROTECTION: PROTECT OTHER WORK DURING CUTTING AND PATCHING OPERATIONS TO PREVENT DAMAGE. PROVIDE PROTECTION OF ALL WORK FROM ADVERSE WEATHER CONDITIONS. WHERE OPENINGS ARE CREATED IN ROOF OR EXTERIOR WALLS, PROVIDE TEMPORARY ENCLOSURE OF SUCH OPENINGS ON A DAILY BASIS, AND WHENEVER ADVERSE WEATHER THREATENS OR EXISTS.
- SAFEGUARDS DURING CONSTRUCTION: NOTE TO GENERAL CONTRACTOR: ALL MEANS OF EGRESS COMPONENTS INCLUDED, BUT NOT LIMITED TO, EXIT DOORS, ROUTES, SIGNS AND ALL COMPONENTS REQUIRED UNDER THE RULES GOVERNING IN THE JURISDICTION. ARE TO REMAIN IN PLACE AND ACTIVE DURING ALL PHASES OF CONSTRUCTION. ACCESS TO EXIT ROUTES ARE TO BE FREE OF CONSTRUCTON EQUIPMENT, MATERIALS, FURNITURE, SHELVING AND/OR ANY POSSIBLE BLOCKAGE TO THESE ACCESSABLE ROUTE AND COMPONENTS. ( IS TO RPOVIDE SAFE/SEPARATE BARRIERS AS NEEDED TO PROTECT THE PUBLIC FROM DEBRIS AND GENERAL CONSTRUCTION OCCURANCES.
- PROTECT FROM DAMAGE DURING CONSTRUCTION ALL EXISTING WALLS, FLOORS, CEILINGS, ETC. THAT ARE TO REMAIN. CONTRACTOR TO PATCH & REPAIR ANY DAMAGED PORTIONS OF THE EXISTING BUILDING AS REQUIRED TO MATCH THE EXISTING ADJACENT CONSTRUCTION & FINISHES.
- 10 THIS PLAN INDICATES A GENERAL SCOPE OF WORK TO BE PERFORMED AND DOES NOT RELIEVE THE CONTRACTOR TO COMPLETE THE BUILDING MODIFICATIONS AS SHOWN AND REQUIRED BY THE CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO PLUMBING, ELECTRICAL & HVAC WORK.
- 11 IF CONTRACTOR ENCOUNTERS ANY HAZARDOUS MATERIALS DURING DEMOLITION OR CONSTRUCTION, HE SHALL IMMEDIATELY SUSPEND WORK & NOTIFY THE ARCHITECT BEFORE PROCEEDING.
- 12 CONTRACTOR SHALL DOCUMENT ANY EXISTING ROOF SHEATHING THAT NEEDS TO BE REPLACED WITH
- 13 PROVIDE AN ALTERNATE UNIT COST FOR THE REMOVAL AND REPLACEMENT OF THE WOOD FRAMING/ SHEATHING AND METAL PANEL MANSARD ROOFING WITH NEW.

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**ADDRESS** CITY, STATE, ZIPCODE Ph:TBD-Office Phone

Plans Prepared By : CPH, CONSULTING LLC.

State of Florida Licenses: Architect No. AA2600926 Engineer No. 3215 Landscape No. LC0000298

Surveyor No. 7143

Architect of Record

TBD-Arch License

TBD-Arch

Designed: Designer JKM Drawn:

Checker

E6611

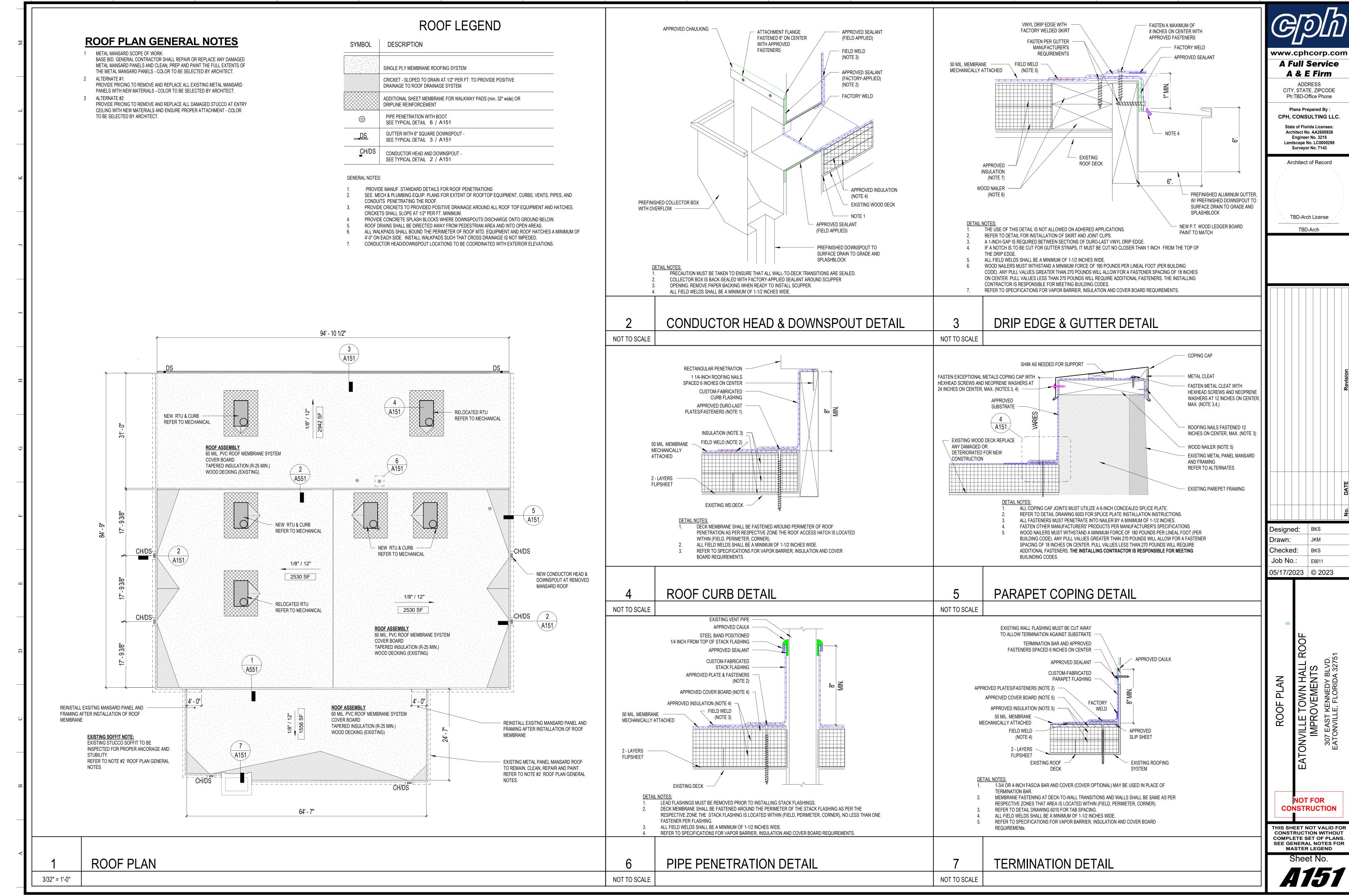
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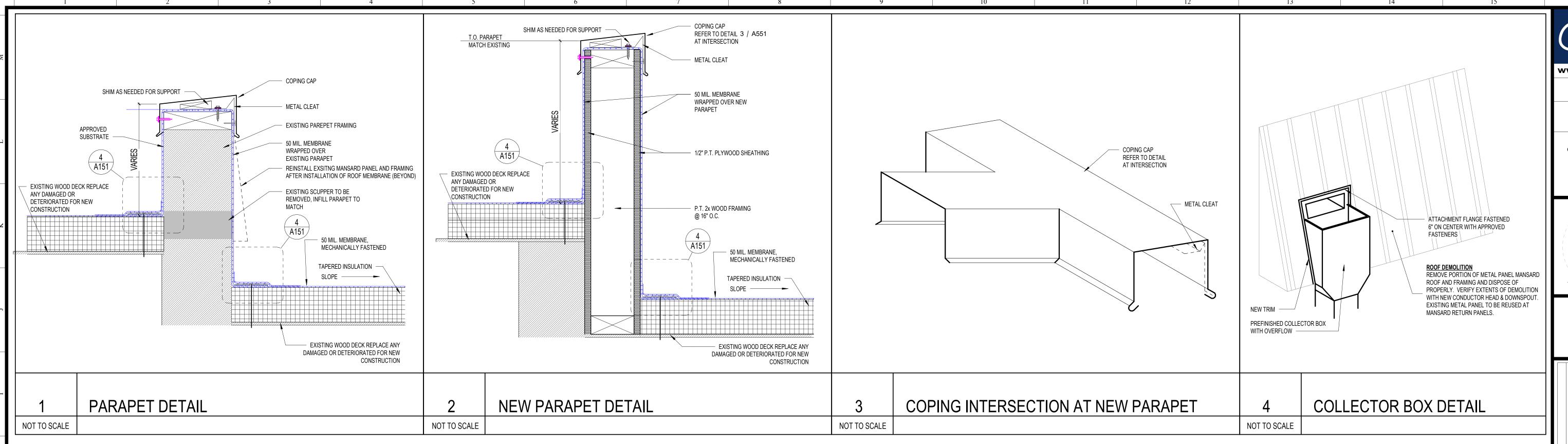
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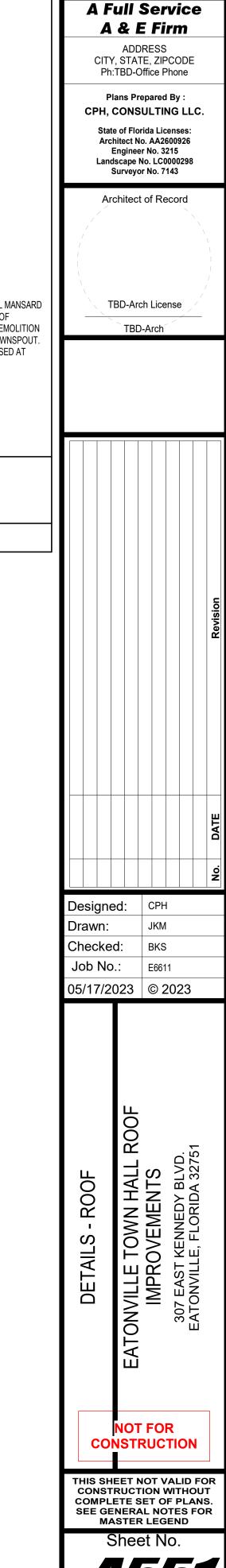
Job No.:

**NOT FOR** CONSTRUCTION

THIS SHEET NOT VALID FOR **CONSTRUCTION WITHOUT COMPLETE SET OF PLANS.** SEE GENERAL NOTES FOR MASTER LEGEND







## **GENERAL NOTES**

### **GENERAL NOTES:**

SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OR ARCHITECT PRIOR TO ORDERING, PURCHASING, OR FABRICATING ANY MECHANICAL EQUIPMENT. SHOP DRAWINGS SHALL INCLUDE: ALL EQUIPMENT SCHEDULED OR SPECIFIED ON THE DRAWINGS: DUCTWORK DRAWN TO 1/4" SCALE OR THE SCALE SHOWN ON THE DRAWINGS: REFRIGERANT PIPING AND CONTROL WIRING SCHEMATICS CERTIFIED BY THE AIR CONDITIONING EQUIPMENT MANUFACTURER. FAILURE TO SUBMIT REFRIGERANT PIPING DRAWINGS SHALL BE CAUSE FOR REJECTION OF THE ENTIRE SUBMITTAL.

ALL MECHANICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. ENSURE ALL RECOMMENDED CLEARANCES ARE MAINTAINED.

ALL MECHANICAL EQUIPMENT AND SYSTEMS SHALL BE GUARANTEED FOR A PERIOD OF ONE YEAR AFTER OWNER

OCCUPANCY. ALL HVAC COMPRESSORS SHALL HAVE EXTENDED 4-YEAR MANUFACTURER'S WARRANTY FOR A 5-YEAR WARRANTY.

INSTALL ROOF MOUNTED OUTDOOR AIR CONDITIONING EQUIPMENT LEVEL ON STRUCTURAL RAIL SYSTEMS OR CURBS. MOUNT ALL EQUIPMENT ON NEOPRENE PADS. ALL ROOF TOP MOUNTED EQUIPMENT SHALL BE INSTALLED PER DETAILS.

PORTIONS OF DUCTWORK AND PIPE INSULATION VISIBLE THROUGH AIR DISTRIBUTION DEVICES IN FINISHED AREAS (OFFICE AREA) SHALL BE PAINTED FLAT BLACK.

MOUNT TOP OF THERMOSTATS AND SENSORS 7'-0" AFF IN WAREHOUSE AND 4'-0" AFF IN OFFICE AREA UNLESS NOTED OTHERWISE. PROVIDE CLEAR LOCKING GUARD ASSEMBLIES FOR ALL OPEN AREA THERMOSTATS. COORDINATE THERMOSTAT LOCATIONS WITH OTHER TRADES. ALL THERMOSTATS SHALL BE ADA COMPLIANT.

ALL WORK SHALL BE COORDINATED AND PERFORMED WITH PRIOR APPROVAL FROM THE OWNER TO SUIT HIS OPERATING CONDITIONS. WORK IN HAZARDOUS AREAS SHALL BE PERFORMED IN ACCORDANCE WITH OWNER'S REQUIREMENTS.

ANY EXISTING WALL, FLOOR, OR CEILING SURFACE THAT IS DISTURBED DURING THE COURSE OF THE HVAC WORK SHALL BE REPAIRED TO MATCH NEW AND/OR EXISTING CONDITIONS.

AFTER CONSTRUCTION, THE ENTIRE HVAC SYSTEM SHALL BE TESTED, ADJUSTED, AND BALANCED TO DELIVER THE AIR QUANTITIES SHOWN ON THE DRAWINGS. SUBMIT CERTIFIED (AABC OR NEBB) TESTING AND BALANCING REPORT TO THE **FNGINFFR/ARCHITFCT** 

CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL MECHANICAL EQUIPMENT, DUCTWORK, PIPING, ETC. TO FIT WITHIN THE SPACE ALLOWED BY THE ARCHITECTURAL AND STRUCTURAL CONDITIONS. CUTTING OR OTHERWISE ALTERING ANY STRUCTURAL MEMBERS SHALL NOT BE PERMITTED WITHOUT WRITTEN PERMISSION FROM THE ARCHITECTS.

ALL PIPE AND DUCT PENETRATIONS OF FIRE AND/OR SMOKE-RATED ASSEMBLIES SHALL BE FIRE-STOPPED AS REQUIRED TO RESTORE THE ASSEMBLY TO ITS ORIGINAL INTEGRITY. FIRE BARRIER PRODUCTS SHALL BE MANUFACTURED BY TREMCO. HILTI, 3M OR APPROVED EQUAL.

12. HVAC EQUIPMENT TO AUTOMATICALLY SHUTDOWN ON CALL FROM FIRE ALARM.

PROVIDE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND IN WALL STRUCTURE TO ALLOW ADEQUATE ROOM FOR MAINTENANCE OF EQUIPMENT AND BALANCING OF SYSTEMS. ACCESS PANELS IN CEILING AND WALLS SHALL BE PROVIDED WHERE SHOWN ON THE ARCHITECTURAL DRAWINGS OR NECESSARY TO ACCESS DAMPERS, VALVES, ETC. COORDINATE EXACT LOCATION OF ALL ACCESS PANELS WITH THE ARCHITECT DURING THE SHOP DRAWING PROCESS.

ALL MECHANICAL EQUIPMENT SHALL BE LABLED WITH A SEMI-RIGID PLASTIC LAMINATE WITH 2" HIGH WHITE LETTERS ON A BLACK BACKGROUND SECURELY AFFIXED TO THE EQUIPMENT. THE NAMEPLATE SHALL SHOW THE EQUIPMENT TAG USED ON THESE DRAWINGS. AFFIX LABELS ON EQUIPMENT SO THAT IT IS VISIBLE AT THE ROOF LEVEL AND PLACE ANOTHER LABEL THAT IS VISIBLE FROM THE FLOOR LEVEL BELOW.

REFER TO ARCHITECTURAL PLANS FOR CEILING TYPES, HEIGHTS ,FLOOR AND CEILING ASSEMBLY UL RATINGS AND

SLEEVE ALL WALL PENETRATIONS. SLEEVE INTERSTITIAL SPACE. PROVIDE 22-GAUGE METAL ANGLES AROUND DUCT PENETRATION THROUGH WALLS EXPOSED TO VIEW.

THE CONTRACTOR SHALL FULFILL ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS AND SHALL COMPLETE THE WORK SHOWN ON THESE DRAWINGS. CONTRACTOR TO TAKE INTO CONSIDERATION ALL EXISTING CONDITIONS AND INDICATE ANY ISSUES TO ENGINEER COMMENCEMENT OF WORK. ALL SYSTEMS SHALL BE FINISHED, TESTED AND BALANCED, ADJUSTED, AND PROVEN TO BE FULLY OPERATIONAL AND USEABLE.

ADJUST ALL DIFFUSERS IN CORRIDORS OR WITHIN THREE (3) FEET OF A WALL TO PROVIDE 2-WAY OR 3-WAY BLOW AWAY FROM OR PARALLEL TO WALLS. ALL DIFFUSERS SHALL HAVE 4-WAY BLOW UNLESS NOTED OTHERWISE.

ALTERNATE MANUFACTURERS AND MODELS WILL BE REVIEWED. THERE MAY BE ARCHITECTURAL, STRUCTURAL AND ELECTRICAL CHANGES RESULTING FROM THE ALTERNATES. THE COST OF IMPLEMENTING AND ENGINEERING THESE CHANGES SHALL BE BORNE BY THE MECHANICAL SUBCONTRACTOR.

## **DUCT SMOKE DETECTORS:**

ALL FANS SUPPLYING 2000 CFM OR MORE OF AIR TO ANY SPACE SHALL BE PROVIDED WITH A SMOKE DETECTOR IN THE RETURN AND SUPPLY DUCTWORK UNLESS OTHERWISE INDICATED. DUCT SMOKE DETECTORS SHALL BE INSTALLED IN THE RETURN AND SUPPLY AIR PATH OF AIR DISTRIBUTION SYSTEM UTILIZING A COMMON SUPPLY AND OR RETURN AIR PLENUM WITH A COMBINED CAPACITY GREATER THAN 2000 CFM.

THE SMOKE DETECTOR SHALL BE WIRED TO STOP THE FAN UPON DETECTION OF SMOKE, AND SIGNAL THE BUILDING FIRE ALARM CONTROL PANEL. COORDINATE ALL UNIT ALARMS AND SIGNALS WITH FIRE ALARM CONTRACTOR, ELECTRICAL CONTRACTOR,

## MECHANICAL/ELECTRICAL COORDINATION:

CONTRACTOR SHALL COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL DRAWINGS PRIOR TO ORDERING EQUIPMENT OR SUBMITTING SHOP DRAWINGS, AND SHALL FURNISH EQUIPMENT WIRED FOR THE VOLTAGES SHOWN THEREIN. SHOP DRAWING SUBMITTAL SHALL CLEARLY STATE THAT THE ELECTRICAL CHARACTERISTICS OF ALL EQUIPMENT HAS BEEN COORDINATED WITH THE ELECTRICAL CONTRACT DOCUMENTS AND THE ELECTRICAL CONTRACTOR.

ALL MECHANICAL EQUIPMENT REQUIRING ELECTRICAL POWER SHALL BE INSTALLED WITH DISCONNECT SWITCHES AT EACH PIECE OF EQUIPMENT. COORDINATE SWITCH TYPE (FUSED OR NON-FUSED) WITH EQUIPMENT CHARACTERISTICS, MANUFACTURER'S RECOMMENDATIONS AND THE ELECTRICAL DRAWINGS.

ALL REQUIRED CONTROL WIRING (INCLUDING POWER WIRING REQUIRED FOR CONTROL PANELS, DEVICES, ETC.) NOT SHOWN ON THE ELECTRICAL DRAWINGS SHALL BE INCLUDED AS PART OF THE MECHANICAL WORK. WIRING IN HVAC PLENUM SPACES SHALL BE INSTALLED ACCORDING TO CODE REQUIREMENTS.

UNLESS NOTED OTHERWISE. TRANSFORMERS. CONTROLS AND CONTROL WIRING REQUIRED FOR ALL MECHANICAL SYSTEMS SHALL BE FURNISHED WITH THE EQUIPMENT IT SERVES AND INSTALLED BY THE MECHANICAL CONTRACTOR. MOTOR STARTERS FOR HVAC EQUIPMENT SHALL BE FURNISHED WITH THE MOTOR OR APPARATUS WHICH IT OPERATES. MOTOR STARTER INSTALLATION SHALL BE BY THE DIVISION 26 CONTRACTOR.

MECHANICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL CHARACTERISTICS OF ALL HVAC EQUIPMENT (VOLTAGE, PHASE, ETC...) WITH THE ELECTRICAL CONTRACTOR AND ELECTRICAL PLANS BEFORE ORDERING ANY MECHANICAL EQUIPMENT. ANY SUBSEQUENT MISMATCH BETWEEN MECHANICAL EQUIPMENT, ELECTRICAL REQUIREMENTS, AND THE ELECTRICAL SERVICE, AS DESIRED AND PROVIDED SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR.

MECHANICAL / ELECTRICAL COORDINATION STATEMENTS REQUIRED BY HVAC GENERAL NOTES AND SPECIFICATIONS 230000-1.6(E) SHALL BE INCLUDED IN EQUIPMENT SUBMITTALS / SHOP DRAWINGS.

## **MECHANICAL NOTES:**

COORDINATE EXACT LOCATION OF ALL NEW EQUIPMENT WITH ARCHITECTS FINISHED CEILING PLAN, SPRINKLER PIPING AND ELECTRICAL CONDUITS. ALSO, CONTRACTOR SHALL COORDINATE WITH OWNER SUPPLIED AND INSTALLED EQUIPMENT. NO EXTRAS SHALL BE AWARDED FOR REVISIONS CAUSED BY LACK OF COORDINATION.

DRAWINGS ARE DIAGRAMMATIC, THEREFORE DETERMINE EXACT LOCATIONS OF SYSTEMS/COMPONENTS IN FIELD USING

CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FOLLOWING OWNERS RULES AND STANDARDS PRIOR TO BID. WORK AND COMPLETION OF PROJECT.

ALL EQUIPMENT DUCTS AND PIPING PENETRATING THE NEW FIRE RATED WALLS TO BE FIRE RATED.

CONTRACTOR SHALL ROUTE DUCTWORK WITHIN THE CEILING SPACE AS HIGH AS POSSIBLE TO MAINTAIN CLEARANCE ALLOWABLE.

## AIR DISTRIBUTION:

SUPPLY, RETURN, AND O.A. DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS, LATEST EDITION. ALL JOINTS AND SEAMS IN ALL SHEETMETAL DUCTWORK SHALL BE

EXTERIOR SUPPLY AND RETURN DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEETMETAL WITH ALL SEAMS CAULKED AND SEALED WEATHERTIGHT.

3. ALL OPEN ENDED DUCTS AND FAN OUTLETS SHALL HAVE 1/2" X 1/2" HARDWARE CLOTH AFFIXED OPENING.

EXHAUST DUCTWORK SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. DUCT SUPPORTS AND ATTACHMENT TO STRUCTURE SHALL BE PER SMACNA STANDARDS.

FLEXIBLE DUCTWORK SHALL BE THERMAFLEX M-KE (U.L. 181 LISTED, CLASS 1 FLEXIBLE AIR DUCT) OR EQUAL. PROVIDE THERMAFLEX M-KE R-6 (R-VALUE - 4.6 MINIMUM OR AS REQUIRED BY LOCAL ENERGY CODE) IN ATTICS AND OTHER UNCONDITIONED SPACES. AIR CONNECTORS ARE NOT ACCEPTABLE. FLEX DUCT DIAMETER SHALL MATCH DEVICE NECK DIAMETER. PROVIDE ROUND GALVANIZED STEEL DUCT RUNOUTS TO MAINTAIN A MAXIMUM FLEXIBLE DUCT LENGTH OF 8'-0". FLEXIBLE DUCTWORK SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE AND SHALL BE ROUTED AND SUPPORTED WITHOUT FORMING CRIMPS OR OTHER AIR FLOW RESTRICTIONS. PROVIDE SQUARE TO ROUND ADAPTERS OR BOOTS TO CONNECT TO AIR DEVICE NECK WHEN REQUIRED.

ROUND AND FLEXIBLE SUPPLY AIR DUCTWORK SHALL BE CONNECTED TO MAIN DUCTS WITH A SPIN IN FITTING AND BALANCING DAMPER. WHERE INSTALLED ABOVE IN-ACCESSIBLE CEILINGS, THE DAMPER SHALL BE IN THE NECK OF THE AIR DEVICE.

DUCTWORK DIMENSIONS SHOWN ON THE DRAWINGS ARE INSIDE CLEAR DIMENSIONS.

EXTERNAL STATIC PRESSURE (ESP) DOES NOT INCLUDE COIL, CASING OR FILTER PRESSURE DROP.

INSTALL FIRE DAMPERS IN ALL RATED WALLS, FLOOR AND CEILING PENETRATIONS. FIRE DAMPERS SHALL BE THE DYNAMIC TYPE WITH BLADES OUT OF THE AIR STREAM WHERE POSSIBLE.

INSTALL SMOKE DAMPERS IN ALL DUCT PENETRATIONS THROUGH A SMOKE RATED WALLS. WHERE DUCTS PENETRATE WALLS THAT CARRY BOTH FIRE AND SMOKE RATINGS, THE DAMPERS INSTALLED SHALL BE COMBINATION FIRE AND SMOKE DAMPERS. ALL DAMPERS SHALL BE U.L. 555 AND OR 555S LABELED.

11. DUCT ACCESS DOORS: PROVIDE ACCESS DOORS IN DUCTWORK AT EACH FIRE AND SMOKE DAMPER LOCATION.

12. LOCATIONS OF GRILLES, REGISTERS, AND DIFFUSERS SHOWN ON THE DRAWINGS ARE APPROXIMATE. COORDINATE EXACT LOCATIONS WITH LIGHTS, CEILING GRID, ETC. AND ARCHITECTURAL REFLECTED CEILING PLAN.

REFRIGERANT PIPING SHALL BE TYPE L OR REFRIGERATION SERVICE COPPER TUBING WITH BRAZED JOINTS.

CONDENSATE FROM ALL AIR CONDITIONING EQUIPMENT SHALL BE TRAPPED AND ROUTED TO THE NEAREST FLOOR DRAIN OR SERVICE SINK UNLESS OTHERWISE SHOWN. CONDENSATE PIPING SHALL BE SCHEDULE 40 PVC (EXCEPT INSULATED COPPER IN HVAC PLENUMS). CONDENSATE SHALL BE PUMPED AS REQUIRED. PVC CONDENSATE PIPING EXPOSED TO WEATHER SHALL BE UV PROTECTED PER MANUFACTURER'S RECOMMENDATIONS. SLOPE CONDENSATE PIPING AT MINIMUM 1/8" PER FOOT.

ALL PIPING ABOVE GRADE SHALL BE SUPPORTED BY THE BUILDING STRUCTURE AND SHALL NOT REST ON CEILING TILES OR CEILING STRUCTURE. PIPING HUNG FROM JOISTS SHALL BE HUNG FROM THE TOP CHORDS OF THE JOISTS.

WHERE MAXIMUM OPERATING PRESSURE IS GREATER THAN 150 PSIG IN ANY SYSTEM, CONTRACTOR SHALL FURNISH AND INSTALL PRODUCTS, PIPING, VALVES, FITTINGS, AND ACCESSORIES WITH PRESSURE CLASSIFICATIONS THAT ARE SUITABLE FOR

## **INSULATION:**

1. DUCT INSULATION:

DUCT WRAP SHALL BE UL LISTED FIBERGLASS BLANKET INSULATION WITH FOIL VAPOR BARRIER. PUNCTURES AND TEARS IN THE FOIL JACKET SHALL BE PATCHED WITH FOIL TAPE TO MAINTAIN THE INTEGRITY OF THE VAPOR BARRIER. INSULATE SHEET METAL DUCTWORK IN THE THICKNESS AND DENSITIES AS LISTED BELOW:

SHEET METAL SUPPLY AND RETURN DUCTWORK IN NON-AIR

CONDITIONED AREAS: 2.2" THICK, 3/4 LB/FT3 DENSITY (MIN R-8) SHEET METAL SUPPLY AND RETURN DUCTWORK IN AIR CONDITIONED

AREAS: 2.2" THICK, 1-1/2 LB/FT3 DENSITY (MIN R-6) SHEET METAL OUTSIDE DUCTWORK IN NON-AIR CONDITIONED AREAS:

2.2" THICK, 3/4 LB/FT3 DENSITY (MIN R-8) SHEET METAL OUTSIDE AIR DUCTWORK IN AIR CONDITIONED AREAS:

2.2" THICK, 1-1/2 LB/FT3 DENSITY (MIN R-8)

SHEET METAL SUPPLY AND OR RETURN AIR DUCTWORK INDICATED TO BE INTERNALLY LINED IN LIEU OF EXTERNAL DUCT WRAP SHALL BE LINED WITH 1-1/2" THICK 3 PCF FIBERGLASS DUCT LINER BOARD (MINIMUM R-6.5). INSULATED DUCTS EXPOSED IN FINISHED AREAS SHALL BE LINED.

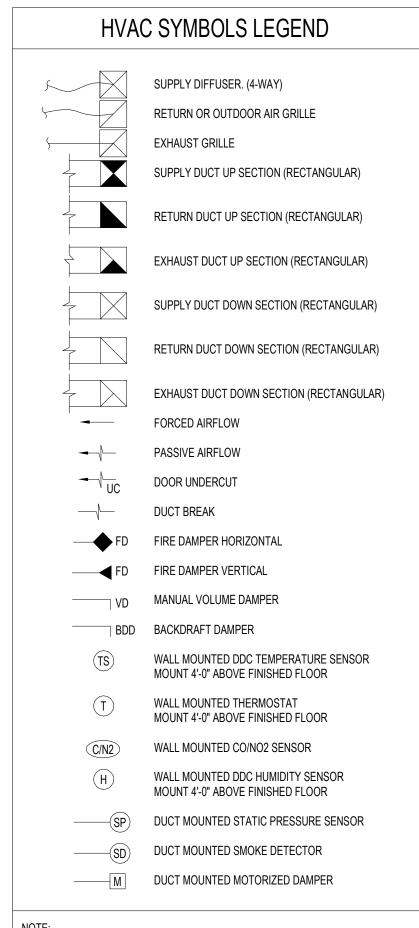
## PIPE INSULATION:

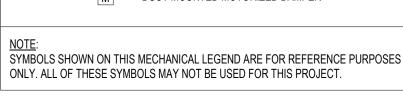
REFRIGERANT SUCTION PIPING SHALL BE INSULATED WITH 1-1/2" THICK FLEXIBLE ELASTOMERIC TUBING INSULATION, AP APRMAFLEX PIPE INSULATION MANUFACTURED BY ARMACEL OR EQUAL. INSULATION SHALL BE SLID OVER PIPING FROM ONE END BEFORE PIPE ENDS ARE JOINED AND SHALL NOT BE SLIT OR CUT. ALL JOINTS AND SEAMS SHALL BE SEALED WEATHER-TIGHT. FINISH COAT FOR FLEXIBLE ELASTOMERIC INSULATION INSTALLED OUTDOORS SHALL BE WATER-BASED LATEX ENAMAL DESIGNED FOR USE OVER ALL FORMS OF FLEXIBLE ELASTOMERIC INSULATION. FINISH COAT SHALL PROVIDE A PROTECTIVE FINISH SUITABLE TO BOTH INDOOR AND OUTDOOR APPLICATIONS, FORMULATED FOR COLD WEATHER FLEXIBILITY TO RESIST CRACKING AND WEATHER-RESISTANT TO ULTRAVIOLET (UV) AND OZONE. COATING SHALL BE ARMAFLEX WB FINISH OR EQUIVALENT.

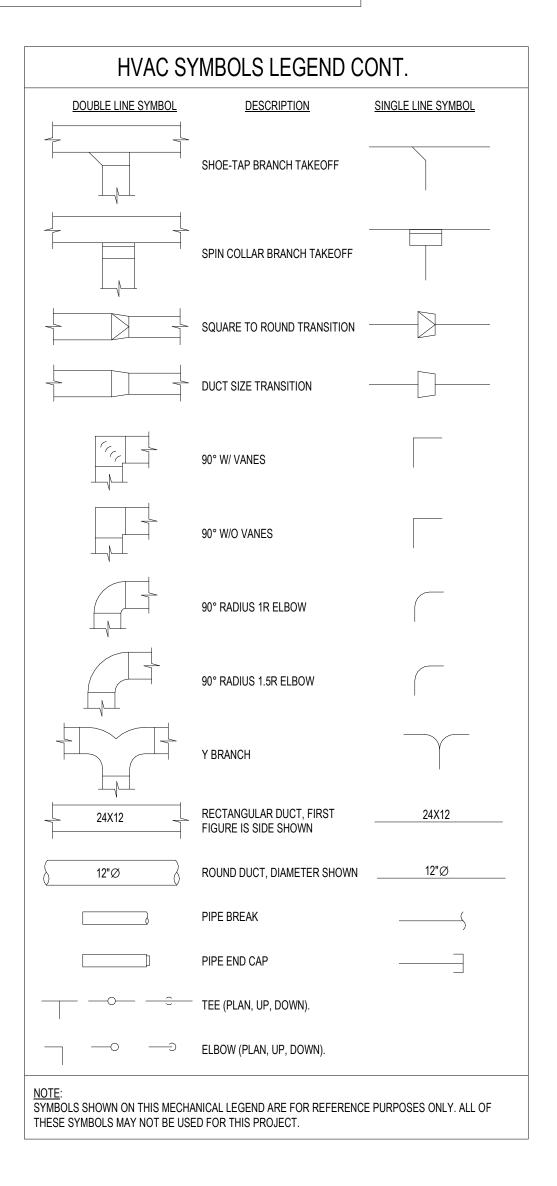
## **AUTOMATIC TEMPERATURE CONTROLS:**

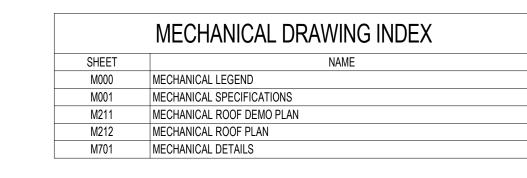
1. ALL MECHANICAL EQUIPMENT SHALL BE CONTROLLED PER SEQUENCE OF OPERATIONS ON DRAWING M0.02.

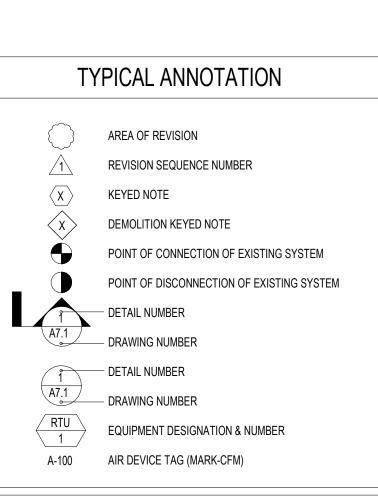
### **ABBREVIATIONS** NORMALLY CLOSED AIR CONDITIONER OR CONDITIONING ELC ELECTRICAL NORMALLY OPEN AIR CONDITIONING UNIT ELEV ELEVATION NTS NOT TO SCALE ACCESS DOOR ENT ENTERING OUTSIDE AIR AD OPPOSED BLADE DAMPER ADJUSTABLE EQUAL AFF ABOVE FINISHED FLOOR EXISTING TO REMAIN OUTSIDE DIAMETER ABOVE FINISHED GRADE FXH OPFRATING FXHAUST PLUMBING CONTRACTOR AIR HANDLING UNIT FAHRENHEIT, DEGREE FAHRENHEIT PNEUMATIC CONTROL DAMPER ACOUSTICAL LINING FAN COIL UNIT FIRE DAMPER, FLOOR DRAIN PNEUMATIC CONTROL VALVE ALUM ALUMINUM PRESSURE DROP ACCESS PANEL FEET PER MINUTE PLBG PLUMBING AIR PRESSURE DROP FEET PER SECOND FSD FIRE AND SMOKE DAMPER AUTOMATIC TEMPERATURE CONTROL PRESSURE REDUCING STATION BUILDING MANAGMENT SYSTEM FT PRESSURE REDUCING VALVE BDD BACK DRAFT DAMPER GΑ GAUGE POUNDS PER SQUARE INCH BHP BRAKE HORSEPOWER GAL GALLON PSIG POUNDS PER SQUARE INCH GAUGE BLDG BUILDING GALV GALVANIZED RELAY BACKFLOW PREVENTER GENERAL CONTRACTOR RETURN AIR RADIATION DAMPER BTUH BRITISH THERMAL UNIT PER HOUR GPH GALLONS PER HOUR CELCIUS, DEGREE CELCIUS GPM GALLONS PER MINUTE REQ'D REQUIRED RETURN FAN COMPRESSED AIR HOSE BIBB REHEAT, RELATIVE HUMIDITY CONDENSATE DRAIN HANDICAPPED HVAC HEATING VENTILATING AND AIR CONDITIONING REHEAT COIL CENT CENTRIFUGAL CFM CUBIC FEET PER MINUTE HEATING AND VENTILATING UNIT REVOLUTIONS PER MINUTE CHW CHILLED WATER HORSEPOWER ROOFTOP UNIT CLG CEILING HOUR SUPPLY AIR CLEAN OUT, CARBON MONOXIDE HERTZ (CYCLES PER SECOND) SUPPLY FAN SQFT SQUARE FEET CARBON DIOXIDE INSIDE DIAMETER THERMOSTAT CONC CONCRETE INCH COP COEFFICIENT OF PERFORMANCE INDIRECT WASTE TEMP TEMPERATURE CONDENSING UNIT KILOWATT TRANSFER GRILLE LEAVING AIR TEMPERATURE TEMPERATURE SENSOR CONSTANT VOLUME DRY BULB POUND, POUNDS TYPICAL DCW DOMESTIC COLD WATER LINEAR DIFFUSER UNLESS OTHERWISE NOTED DDC DIRECT DIGITAL CONTROL LWT LEAVING WATER TEMPERATURE VENT, VOLT DEG DEGREE MAXIMUM VOLUME DAMPER, MANUAL DRINKING FOUNTAIN THOUSAND BTU PER HOUR VERT VERTICAL VARIABLE FREQUENCY DRIVE DISC DISCONNECT MECHANICAL CONTRACTOR VFD DN MOTORIZED DAMPER WATTS DOWN DWGS DRAWINGS WITH MANUFACTURER W/O WITHOUT DWV DRAIN. WASTE AND VENT PIPING MIN MINIMUM DIRECT EXPANSION WET BULB MOD MOTOR OPERATED DAMPER WATER CLOSET EXHAUST AIR MOTOR STARTER WATER PRESSURE DROP ENTERING AIR TEMPERATURE MANUAL VOLUME DAMPER ELECTRICAL CONTRACTOR M/S METERS PER SECOND WS WALL SWITCH ENERGY EFFICIENCY RATIO N NORTH WASTE AND VENT EXHAUST FAN NA NOT APPLICABLE/NOT AVAILABLE NUMBER











## DESIGN CONDITIONS

OUTDOOR SUMMER DESIGN:	91.6°F DB / 75.7°F WB
OUTDOOR WINTER DESIGN:	38.9°F
OFFICES SUMMER DESIGN:	75°F, 50% RH
OFFICES WINTER DESIGN:	70°F
WAREHOUSE SUMMER DESIGN:	85°F, 50% RH
WAREHOUSE WINTER DESIGN:	60°F
FUTURE TENANT SPACE WINTER DESIGN:	45°F

ORLANDO, FLORIDA.

# CODE IDENTIFICATION

BASED ON ASHRAE FUNDAMENTALS 2017 99.6% AND 2.0% CLIMATE DATA FOR

BUILDING CODE: MECHANICAL CODE: ENERGY CODE:	2017 FLORIDA BUILDING CODE 2017 FLORIDA BUILDING CODE - MECHANICAI 2017 FLORIDA BUILDING CODE - ENERGY CONSERVATION

ALL WORK SHALL COMPLY WITH THE CODE IDENTIFIED ABOVE ALONG WITH ALL OTHER GOVERNING CODES AND ORDINANCES APPLICABLE TO THE SCOPE OF THIS PROJECT.

A Full Service A & E Firm CITY, STATE, ZIPCODE Ph:TBD-Office Phone Plans Prepared By CPH, Inc. State of Florida Licenses Architect No. AA2600926 Engineer No. 3215 Landscape No. LC0000298 Surveyor No. 7143 Engineer of Record ##/##/2021 TBD-Mech License TBD-Mech Engineer CELEBRATING

Designed: | JAD

Drawn:

Checked:

Job No.:

LEGEND

JNM

E6611

03/01/2023 © 2023

NOT FOR CONSTRUCTION

THIS SHEET NOT VALID FOR **CONSTRUCTION WITHOUT** COMPLETE SET OF PLANS. SEE GENERAL NOTES FOR MASTER LEGEND

(INSTALL): OPERATIONS AT THE PROJECT SITE INCLUDING THE ACTUAL UNLOADING, UNPACKING, ASSEMBLY, ERECTION, PLACING, ANCHORING, APPLYING, WORKING TO DIMENSION, FINISHING, CURING, PROTECTING, CLEANING, AND SIMILAR OPERATIONS. (PROVIDE): FURNISH AND INSTALL, COMPLETE AND READY FOR THE INTENDED USE.

(UNO) OR (U.N.O.): UNLESS NOTED OTHERWISE.

THE CONTRACTOR SHALL MAINTAIN A SAFE WORK ENVIRONMENT AT ALL TIMES. COMPLY WITH ALL OSHA, NIOSH, DOT, STATE, AND LOCAL REQUIREMENTS REGARDING SAFE HANDLING, STORING, TRANSPORTING, AND DISPENSING OF CHEMICALS. MAINTAIN AND DISPLAY MSDS INFORMATION FOR ALL CHEMICAL PRODUCTS. PROVIDE ALL NECESSARY MEANS TO MAINTAIN SAFE WORKING CONDITIONS, INCLUDING VENTILATION FANS, FIRE EXTINGUISHERS, EYE PROTECTION, RESPIRATORS, PROTECTIVE CLOTHING,

ALL EQUIPMENT AND MATERIALS USED TO IMPLEMENT THE WORK SHALL BE USED IN STRICT ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, INCLUDING ALL RECOMMENDED SAFETY PRECAUTIONS.

MAINTAIN A PROPER FIRE WATCH FOR ALL OPERATIONS WHERE SPARKS, FLAMES, OR OTHER SOURCES OF FIRE ARE PRODUCED. FOR ALL MATERIALS CONTAINING SOLVENTS, MAINTAIN THE RECOMMENDED VENTILATION OF THE AREA TO PREVENT THE ACCUMULATION OF VAPORS WHICH POSE A HEALTH OR FIRE HAZARD.

## COMPLETE SYSTEMS:

THE DRAWINGS ARE DIAGRAMMATIC.

PROVIDE ALL MATERIALS AND APPURTENANCES NECESSARY FOR THE COMPLETE INSTALLATION OF EACH UTILITY, WHETHER OR NOT ALL SUCH MATERIALS AND APPURTENANCES ARE SHOWN ON THE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS.

THE INSTALLED SYSTEM SHALL BE COMPLETE IN EVERY WAY AND FUNCTIONING ACCORDING TO THE DESIGN INTENT.

THE CONTRACTOR SHALL VERIFY PROJECT CONDITIONS TO INSURE THAT THE WORK WILL FIT INTO THE STRUCTURE IN THE MANNER INTENDED ON THE DRAWINGS.

SHOULD ANY CONDITIONS EXIST THAT ARE CONTRARY TO THOSE SHOWN ON THE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO FABRICATION OR PERFORMING ANY WORK IN THE AREA INVOLVING THE DIFFERENCES.

NOTIFICATION SHALL BE IN THE FORM OF A DRAWING OR SKETCH INDICATING FIELD MEASUREMENTS OR NOTES RELATING TO THE

PROVIDE ALL SAW CUTTING, EXCAVATION, TRENCHING, SHORING, COMPACTING, DE-WATERING, ETC. REQUIRED FOR THE PROJECT,

WHETHER OR NOT SHOWN ON THE DRAWINGS. ALL LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC., INDICATED ON THE AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE

TO THE PLANS SUBJECT TO BUILDING CONSTRUCTION AND INTERFERENCES WITH OTHER TRADES. PERFORM ALL WORK NECESSARY TO PREPARE THE STRUCTURE FOR THE INSTALLATION OF THE WORK.

ALL HOLES, OPENINGS AND DAMAGED MATERIALS CREATED DURING CONSTRUCTION SHALL BE REPAIRED AND FINISHED BY

PROVIDE ALL WALL AND FLOOR PENETRATIONS REQUIRED TO COMPLETE INSTALLATION.

ALL PENETRATIONS SHALL BE PATCHED AND FINISHED TO MATCH SURROUNDING SURFACES AND FINISHES.

ALL EQUIPMENT OR PIPE PENETRATIONS THROUGH WALL AND FLOORS SHALL BE SLEEVED AND SEALED SO AS TO BE WATER AND

**COORDINATION AND WORKMANSHIP:** 

EXPERIENCED WORKMEN.

ALL WORK SHALL BE COORDINATED WITH ALL TRADES INVOLVED. VERIFY VOLTAGE AND ALL ELECTRICAL REQUIREMENTS OF MECHANICAL EQUIPMENT AND SYSTEMS WITH DIV. 26 CONTRACTOR PRIOR TO ORDERING.

ALL MATERIALS SHALL BE FABRICATED AND INSTALLED IN A NEAT AND WORKMANLIKE MANNER.

THE OWNER AND ENGINEER SHALL DETERMINE WHETHER WORKMANSHIP IS ACCEPTABLE.

NO ALLOWANCES WILL BE MADE FOR REWORK OR DELAY DUE TO POOR WORKMANSHIP, COORDINATION DIFFICULTIES, OR INTERFERENCES BETWEEN INVOLVED TRADES

RELATED WORK SPECIFIED ELSEWHERE:

ALL DIVISION 1 REQUIREMENTS, AND ALL TERMS AND CONDITIONS OF CONTRACT.

REFER TO ELECTRICAL SPECIFICATION FOR ELECTRICAL WORK TO BE DONE IN CONJUNCTION WITH THE MECHANICAL WORK.

THIS CONTRACTOR IS RESPONSIBLE FOR ALL CONDUIT, WIRING, JUNCTION BOXES, ETC., REQUIRED FOR HVAC CONTROLS, UNLESS SPECIFICALLY NOTED OTHERWISE.

**SUBSTITUTIONS:** 

EQUIPMENT AND DESIGN OF SYSTEMS INDICATED ON THE DESIGN DRAWINGS AND WITHIN THESE SPECIFICATIONS SHALL BE CONSIDERED AS SPECIFIED STANDARD OF QUALITY.

NO SUBSTITUTIONS SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER.

ALL COSTS ARISING FROM A SUBSTITUTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR MAKING THE SUBSTITUTION, INCLUDING VERIFICATION OF FIT AND ACCESS, FIELD-INSTALLED ACCESSORIES, SUPPORTS, ELECTRICAL REQUIREMENTS, AND REVISIONS TO DOCUMENTS (DESIGN COSTS).

CODES AND STANDARDS:

THE ENTIRE SYSTEM AND ALL COMPONENTS LISTED HEREIN SHALL MEET ALL STATE, COUNTY, AND LOCAL CODES AND ORDINANCES IN EVERY RESPECT.

THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS, INSPECTIONS AND PAY ALL FEES.

PRODUCTS:

ALL EQUIPMENT, ETC., SHALL BE NEW UNLESS OTHERWISE NOTED, AND AS SPECIFIED FREE OF DEFECTS

ALL ELECTRICAL EQUIPMENT SHALL BE U.L. OR E.T.L. LISTED.

SHOP DRAWINGS AND SUBMITTALS:

SUBMIT FOR ENGINEER'S APPROVAL, SHOP DRAWINGS, COORDINATION DRAWINGS, AND

MANUFACTURER'S DATA FOR ALL NEW EQUIPMENT AND FIXTURES PRIOR TO PURCHASE AND/OR FABRICATION.

WHERE QUALIFICATIONS AND/OR QUALITY ASSURANCE REQUIREMENTS ARE SPECIFIED, THE SUBMITTAL SHALL INCLUDE EVIDENCE THAT THE STATED REQUIREMENTS HAVE BEEN MET. INCLUDE QUALIFICATIONS AND CERTIFICATIONS OF PROPOSED TEST AND BALANCE SUBCONTRACTOR.

EQUIPMENT PERFORMANCE SHALL BE VERIFIED BY THE EQUIPMENT MANUFACTURER AS PART OF THE SUBMITTAL, PRIOR TO ORDERING.

VERIFY EQUIPMENT VOLTAGE AND ELECTRICAL REQUIREMENTS OF THE EQUIPMENT WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING EQUIPMENT.

SHOP DRAWINGS FOR EQUIPMENT REQUIRING ELECTRIC POWER OR CONTROL WIRING CONNECTIONS SHALL INCLUDE COMPLETE

SUBMITTALS SHALL BE PLACED IN THREE RING BINDERS, INDEXED AND TABBED. INCOMPLETE SUBMITTALS WILL BE RETURNED,

DO NOT ORDER EQUIPMENT OR PROCEED WITH THE WORK WITHOUT PRIOR APPROVED SUBMITTALS.

EQUIPMENT OR WORK WHICH IS ORDERED OR INSTALLED WITHOUT PRIOR APPROVED SUBMITTALS SHALL, AT THE ENGINEER'S DISCRETION, BE REMOVED AT NO COST TO THE OWNER.

NO ALLOWANCES WILL BE MADE FOR REWORK OR DELAY DUE TO NEGLECT OF REQUIRED APPROVAL PROCESS.

COORDINATION DRAWINGS:

SUBMIT 1/4 IN. SCALED DIMENSIONED LAYOUTS SHOWING THE ACCURATELY SCALED DUCTWORK AND PIPING AND THEIR RELATIONSHIP TO SPACE ENCLOSURE.

SHOW ALL OFFSETS AND FITTINGS NECESSARY TO COMPLETE THE DUCTWORK AND PIPING SYSTEMS, INCLUDING INSTALLATION BETWEEN AND THROUGH JOIST, ETC.

SHOP DRAWINGS SHALL BE MACHINE DRAFTED BY PERSONS REGULARLY ENGAGED IN SUCH WORK

DUCT DRAWINGS:

SHOW DUCT GAUGE, SIZES, HANGER METHODS, AND DUCT JOINT CONNECTION DETAILS.

SHOW DUCT ELEVATIONS IN RELATION TO FLOOR, CEILING AND STRUCTURAL ELEMENTS.

INDICATE ALL FIRE DAMPERS, ACCESS PANELS, VOLUME AND CONTROL DAMPERS, SMOKE DETECTORS, MECHANICAL EQUIPMENT, HOUSEKEEPING PADS, SPRINKLER HEADS, LIGHT FIXTURES, GRILLES AND DIFFUSERS, ETC. ON SHOP DRAWINGS.

LOCATE ALL POWER VENTILATORS, AIR HANDLING EQUIPMENT, SMOKE DETECTORS, ETC., IN FULLY ACCESSIBLE LOCATIONS AS THEY RELATE TO LIGHTS, JOISTS, BEAMS, SPRINKLER MAINS, ETC. TO ENSURE SAFE UNRESTRICTED ACCESS FOR SERVICE AND MAINTENANCE.

RECORD DRAWINGS AND OPERATION / MAINTENANCE MANUALS:

PROVIDE THE OWNER A COMPLETE SET OF RECORD DRAWINGS AND OWNER OPERATION/ MAINTENANCE (O/M) MANUALS AT THE END

PROJECT WILL NOT BE COMPLETE UNTIL ACCURATE RECORD DRAWINGS AND O/M MANUALS ARE DELIVERED.

THE RECORD DRAWINGS SHALL BE MACHINE DRAFTED, AND SHALL BE PROVIDED BOTH ON REPRODUCIBLE VELLUMS AND MAGNETIC MEDIA CAD FILES.

DRAWING FORMAT FOR THIS PROJECT SHALL BE AUTOCAD VERSION 2013.

O/M MANUALS SHALL INCLUDE CATALOG TECHNICAL DATA, RECOMMENDED SERVICE PROCEDURES, RECOMMENDED SERVICE INTERVALS, CALIBRATION INFORMATION, FACTORY TRAINING MANUALS, MAGNETIC MEDIA FOR SOFTWARE PROVIDED, AND RECOMMENDED SPARE PARTS.

ORGANIZE OPERATING AND MAINTENANCE DATA INTO SUITABLE SETS OF MANAGEABLE SIZE. BIND PROPERLY INDEXED DATA IN INDIVIDUAL, HEAVY-DUTY, 2-INCH, 3-RING VINYL-COVERED BINDERS WITH POCKET FOLDERS FOR FOLDED SHEET INFORMATION.

MARK APPROPRIATE IDENTIFICATION ON FRONT AND SPINE OF EACH BINDER. INCLUDE THE FOLLOWING TYPES OF INFORMATION: OPERATING AND MAINTENANCE INSTRUCTIONS SPARE PARTS LIST

COPIES OF WARRANTIES WIRING DIAGRAMS INSPECTION REPORTS & APPROVALS SHOP DRAWINGS AND PRODUCT DATA

TRAINING SERVICES:

THOROUGHLY INSTRUCT THE OWNER'S REPRESENTATIVE IN THE OPERATION OF ALL EQUIPMENT FURNISHED AND LOCATION OF ALL VALVES AND CONTROL DEVICES.

TRAIN BUILDING OWNER'S PERSONNEL DURING NORMAL WORKING HOURS ON START-UP AND SHUT-DOWN PROCEDURES, TROUBLESHOOTING PROCEDURES, SERVICING AND PREVENTATIVE

MAINTENANCE SCHEDULE AND PROCEDURES. REVIEW WITH THE OWNER'S PERSONNEL, THE DATA CONTAINED IN THE OPERATING AND MAINTENANCE MANUALS.

SCHEDULE TRAINING WITH OWNER, PROVIDE AT LEAST 7-DAYS PRIOR NOTICE TO ARCHITECT/ENGINEER.

SUPERVISION:

ALL WORK SHALL BE PERFORMED UNDER THE PERSONAL SUPERVISION OF A PROJECT SUPERINTENDENT ON-SITE.

MAINTAIN A COMPLETE SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES DURING THE PROJECT.

DISPOSAL:

FOR ALL MATERIALS AND DEVICES REMOVED, THE CONTRACTOR SHALL DISPOSE OFF SITE IN AN APPROVED MANNER.

PROVIDE WRITTEN DOCUMENTATION FOR DISPOSAL OF ALL ITEMS.

ACCESS AND CLEARANCES:

ARRANGE EQUIPMENT, CONNECTING PIPING, CONNECTING DUCTWORK, ETC. TO PERMIT FREE ACCESS FOR MAINTENANCE AND

COORDINATE WITH OWNER'S REPRESENTATIVE TO BE CERTAIN THAT PROPER ACCESS IS PROVIDED.

MAINTAIN REQUIRED CLEARANCES IN FRONT OF ELECTRICAL PANELS AND EQUIPMENT.

CLEANING, TESTING AND ADJUSTING:

THE MECHANICAL CONTRACTOR, AT HIS EXPENSE, SHALL CLEAN, REPAIR, ADJUST, CHECK, BALANCE, AND PLACE IN SERVICE THE VARIOUS SYSTEMS HEREIN SPECIFIED WITH THEIR RESPECTIVE

EQUIPMENT, ACCESSORIES AND PIPING.

THEY SHALL FURNISH ALL LABOR, MATERIALS, EQUIPMENT, AND TOOLS REQUIRED TO PERFORM TESTS REQUIRED BY THESE SPECIFICATIONS AND BY THE GOVERNING AUTHORITIES.

NO WORK SHALL BE COVERED OR CONCEALED UNTIL PROPERLY INSPECTED AND TESTED.

TEMPORARILY PLUG ALL OUTLETS AND FILL THE SYSTEM WITH WATER TO THE LEVEL OF THE HIGHEST VENT STACK. THE SYSTEM SHALL BE INSPECTED AND ALL LEAKS REPAIRED AND THE TEST REPEATED UNTIL THE WATER LEVEL DOES NOT DECREASE FOR A PERIOD OF 24 HOURS.

REFRIGERANT PIPING TEST:

FILL PIPING WITH OIL PUMPED DRY NITROGEN DURING ALL SOLDERING OPERATIONS. REFRIGERANT PIPING INSTALLED WITHOUT THE SPECIFIED DRY NITROGEN PURGE SHALL BE REMOVED AND REPLACED AT NO COST

TO THE OWNER BUILD UP 20 PSIG IN SYSTEM WITH R-22 AND THEN INCREASE PRESSURE TO 150 PSIG IN SYSTEM WITH R-22 AND THEN INCREASE PRESSURE TO 150 PSIG IN SUCTION PIPING WITH 350 PSIG IN HIGH SIDE PIPING WITH DRY NITROGEN.

TAP ALL FITTINGS WITH RUBBER MALLET. LEAK TEST WITH HALIDE TORCH. REPAIR ANY LEAKS DISCOVERED BY COMPLETELY REMAKING THE LEAKING JOINTS. REPEAT PROCEDURE UNTIL SYSTEM IS PROVEN TIGHT FOR A 24 HOUR PERIOD.

RE-EVACUATE TO 0.1 IN. IN. HG ABSOLUTE. SYSTEM MUST HOLD THIS VACUUM FOR 15 MINUTES.

BLEED OFF PRESSURE AND EVACUATE SYSTEM TO 0.1 IN. IN. HG ABSOLUTE, MEASURING SAME WITH ZIMMERLI VACUUM GAUGE OR BREAK VACUUM BY INJECTING SYSTEM REFRIGERANT INTO SYSTEM AT FARTHEST POINT IN PIPING FROM COMPRESSOR.

REPAIR LEAKS AS REQUIRED UNTIL IT DOES. CHARGE SYSTEM WITH PROPER QUANTITY OF REFRIGERANT.

SYSTEM IDENTIFICATION:

SECURED TO EQUIPMENT.

PROVIDE IDENTIFICATION LABELS ON OR NEAR EACH PIECE OF MAJOR EQUIPMENT AND EACH OPERATIONAL DEVICE AND THE LABELS SHALL BE CONSTRUCTED OF ENGRAVED PLASTIC LAMINATE SIGN OR PLASTIC EQUIPMENT MARKER PERMANENTLY

THE LETTERING SHALL BE A MINIMUM OF 1/2 INCH HIGH FOR EQUIPMENT NAME AND 3/8 INCH FOR EQUIPMENT INFORMATION. ALL VALVES SHALL BE TAGGED, USING ROUND BRASS TAGS AND CHAINS. LETTERING SHALL BE STAMPED.

COORDINATE WITH OWNER FOR REQUIRED TEXT FOR VALVE TAGS.

THE DRAWINGS INDICATE MINIMUM MOTOR HORSEPOWER RATINGS. BRAKE HORSEPOWER SHALL NOT EXCEED MOTOR HORSEPOWER, I.E. MOTORS SHALL NOT OPERATE IN THEIR SERVICE FACTORS.

MINIMUM MOTOR EFFICIENCIES SHALL NOT BE LESS THAN THAT SET FORTH IN THE FLORIDA ENERGY CODE.

UNLESS OTHERWISE SPECIFIED, MOTORS SHALL BE OPEN DRIP PROOF TYPE FOR INDOOR USE, TEFC TYPE FOR OUTDOOR USE, TEFC FOR ALL CHILLER PLANT PUMP MOTORS, TEAO FOR ALL COOLING TOWER FANS.

ALL MOTORS SHALL UTILIZE COPPER WINDINGS.

MOTOR CHARACTERISTICS, SUCH AS INSULATION CLASS, SPEED/TORQUE CURVE, BEARING DESIGN LIFE, SHAFT MATERIAL, BODY MATERIAL, ETC. SHALL BE SELECTED BY THE EQUIPMENT MANUFACTURER BASED UPON THE INTENDED SERVICE OF THE

MOTORS SHALL BE SELECTED BY THE EQUIPMENT MANUFACTURER SUCH THAT THE MOTOR SURFACE TEMPERATURE IS NOT EXCESSIVE.

SURFACE TEMPERATURES OVER 150 DEG F, WITH SURROUNDING AIR OF 100 DEG F SHALL BE CONSIDERED EXCESSIVE AND UNACCEPTABLE.

MOTORS FOUND TO OPERATE AT EXCESSIVE TEMPERATURES SHALL BE REPLACED WITH COOLER-RUNNING MOTORS, AT NO ADDITIONAL COST TO THE OWNER.

PROVIDE INHERENT THERMAL PROTECTION FOR ALL FRACTIONAL HORSEPOWER MOTORS.

HANGERS AND SUPPORTS:

PROVIDE ALL NECESSARY DUCTWORK, PIPE SUPPORTS, HANGER, RODS, CLAMPS AND ATTACHMENTS TO PROPERLY INSTALL AND SUPPORT DUCTWORK, PIPING AND EQUIPMENT FROM THE BUILDING STRUCTURE.

PROVIDE ALL ANGLE IRON OR UNISTRUT AND SUSPENSION RODS REQUIRED TO INSTALL EQUIPMENT, PIPING AND DUCTWORK. ALL SUPPORTS EXPOSED TO OUTDOORS SHALL BE CLEANED, PRIMED AND PAINTED TO PREVENT RUSTING. FINISH COLOR AS

THE USE OF CLOTH FABRIC, BALING WIRE OR PERFORATED METAL STRAPPING IS NOT ACCEPTABLE FOR SUPPORTS.

PIPE SUPPORT SPACING:

<u>'</u>	=	
SERVICE	PIPE SIZE	SPACING
CONDENSATE DRAIN (COPPER)	UP TO 3/4 IN. 1 IN. THRU 1-1/2 IN. 2 IN.	5 FEET 6 FEET 8 FEET
REFRIGERANT (COPPER)	UP TO 3/4 IN. 1 IN. THRU 1-1/2 IN. 2 IN. THRU 4 IN.	4 FEET 6 FEET 8 FEET
PVC PIPING SYSTEMS	ALL SIZES	4 FEET

PIPE SUPPORTS OVERHEAD SHALL BE CLEVIS TYPE, EQUIVALENT TO GRINNELL FIG. 260. FOR COPPER TUBING SUPPORT, PROVIDE ELASTOMERIC PAD TO PREVENT METAL-TO-METAL CONTACT.

FOR INSULATED PIPING, USE MSS TYPE 40 METAL SHIELDS, OF THICKNESS AND LENGTH AS PRESCRIBED IN MSS-SP58.

PIPE SUPPORT HARDWARE, THREADED RODS, ETC. SHALL BE GALVANIZED FINISH UNLESS NOTED OTHERWISE.

WARRANTY/GUARANTEE:

ARCHITECT AND ENGINEER.

(ALL SYSTEMS)

THE CONTRACTOR SHALL WARRANTY/GUARANTEE AND MAINTAIN THE STABILITY OF WORK AND MATERIALS AND KEEP SAME IN PERFECT REPAIR AND CONDITION OF THE PERIOD OF ONE (1) YEAR.

DEFECTS OF ANY KIND DUE TO FAULTY WORK OR MATERIALS APPEARING DURING THE ABOVE MENTIONED PERIOD MUST BE IMMEDIATELY MADE GOOD BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE ENTIRE SATISFACTION OF THE OWNER AND

SUCH RECONSTRUCTION AND REPAIRS SHALL INCLUDE ALL DAMAGE TO THE FINISH OR FURNISHING OF THE BUILDING RESULTING FROM THE ORIGINAL DEFECT OR REPAIRS THERETO.

FOR ALL COMPRESSOR-BEARING EQUIPMENT, PROVIDE 4 YEAR EXTENDED REPLACEMENT WARRANTY ON THE COMPRESSOR, WHICH INCLUDES ALL REFRIGERANT, PARTS AND LABOR

FURNISH ALL LABOR AND MATERIALS TO REPLACE REFRIGERANT LOST DURING THE ONE-YEAR WARRANTY PERIOD.

TEST AND BALANCE:

ADJUST THE AIR CONDITIONING SYSTEMS, VENTILATING SYSTEMS, FANS, PUMPS, ETC., TO DELIVER NOT LESS THAN THE REQUIRED QUANTITY WITH QUANTITIES IN EXCESS TO BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

NOTIFY THE ENGINEER IF SYSTEMS ARE FOUND TO HAVE OBJECTIONABLE EFFECTS SUCH AS NOISE, DRAFTS, OR MOTOR

PRIOR APPROVAL BY THE ENGINEER OF TESTING AND BALANCING CONTRACTOR IS REQUIRED.

TEST AND BALANCE REPORTS BY NON-APPROVED CONTRACTORS WILL BE REJECTED.

PERFORM TESTING AND BALANCING WORK USING PUBLISHED PROCEDURES AS OUTLINED IN AABC TEST AND BALANCE PROCEDURES, LATEST EDITION.

PROVIDE THREE (3) COPIES OF THE TEST AND BALANCE REPORT TO THE ENGINEER AT TIME OF SUBSTANTIAL COMPLETION THE TEST AND BALANCE REPORT SHALL BE PREPARED BY A CONTRACTOR CERTIFIED BY ASSOCIATED AIR BALANCE COUNCIL OR NATIONAL ENVIRONMENTAL BALANCING BUREAU.

THE TEST AND BALANCE REPORT SHALL BE TYPEWRITTEN AND CONTAIN THE FOLLOWING MINIMUM DATA:

PERSONS CONDUCTING AND SUPERVISING THE TEST. DATE, TIME, AND WEATHER WHEN TEST TAKEN. **EQUIPMENT IDENTIFICATION** 

DESIGN VS. MEASURED QUANTITIES.

MOTORS AND DRIVES: MOTOR OPERATING VOLTAGE AND AMPERAGE (EACH LEG FOR 3-PHASE MOTORS). DRIVE TYPES, SIZES AND SPEED RANGE MOTOR AND DRIVE RPM.

PROVIDE TACHOMETER MEASUREMENT OF SPEED FOR ALL BELT DRIVEN EQUIPMENT. AIRFLOW RATES FOR EACH FAN.

AIRFLOW RATES FOR EACH DIFFUSER AND GRILLE. OUTSIDE AIR, EXHAUST AIR, RETURN AIR, AND SUPPLY AIR FOR ALL FAN COILS, UNIT VENTILATORS, AIR HANDLERS, ALL HVAC

INTERNAL AND EXTERNAL STATIC PRESSURE THROUGH UNITS AND ALL UNIT COMPONENTS PRESSURE DROP THROUGH FILTER SECTION (CLEAN FILTERS). BRANCH DUCT SECTIONS WHERE CFM IS INDICATED ON THE FAN CURVES FOR EACH FAN AND AIR HANDLER WITH CURVE PLOTTED FOR ACTUAL RPM, OPERATING POINT, AND SYSTEM CURVE. FOR MULTIPLE FAN UNITS, SHOW SINGLE FAN CURVE, COMBINED FAN CURVE; ALSO SYSTEM CURVE FOR SINGLE AND MULTIPLE FAN

A Full Service A & E Firm

> CITY, STATE, ZIPCODE Ph:TBD-Office Phone

> > Plans Prepared By CPH, Inc. State of Florida Licenses Architect No. AA2600926

Landscape No. LC0000298 Surveyor No. 7143 Engineer of Record ##/##/2021

Engineer No. 3215

TBD-Mech License

TBD-Mech Engineer



Designed: | JAD

Drawn: JNM Checked: Job No.: E6611 03/01/2023 | © 2023

CIFICATIONS

NOT FOR CONSTRUCTION

THIS SHEET NOT VALID FOR **CONSTRUCTION WITHOUT** COMPLETE SET OF PLANS. SEE GENERAL NOTES FOR **MASTER LEGEND** 

**KEYNOTES** DEMO EXISTING ROOF TOP UNIT AND CURB PREPAIR FOR NEW RTU AND DOWNFLOW CURB INSTALLATION UNINSTALL RTU AND PRESERVE FOR REINSTALLATION IN DOWNFLOW ORIENTATION RECONFIGURE HORIZONTAL DISCHARGE RTU INTO DOWNFLOW CONFIGURATION. PROVIDE ACCESSORIES AS NECESSARY. www.cphcorp.com PREP EXISTING DUCTWORK FOR CONNECTION TO NEW DOWNFLOW CURBS. A & E Firm ADDRESS CITY, STATE, ZIPCODE Ph:TBD-Office Phone Plans Prepared By : CPH, Inc. Landscape No. LC0000298 Surveyor No. 7143 ##/##/2021 TBD-Mech License TBD-Mech Engineer EX-RTU-2  $\square$   $\square$  $\sqsubseteq$   $\_$   $\_$ EX-RTU-6 Checked: Job No.: E6611 MECHANICAL ROOF DEMO PLAN
EATONVILLE TOWN HALL ROOF
IMPROVEMENTS
307 EAST KENNEDY BLVD.
EATONVILLE, FLORIDA 32751 NOT FOR CONSTRUCTION MECHANICAL ROOF PLAN DEMO

1/8" = 1'-0"

A Full Service

State of Florida Licenses: Architect No. AA2600926 Engineer No. 3215

Engineer of Record

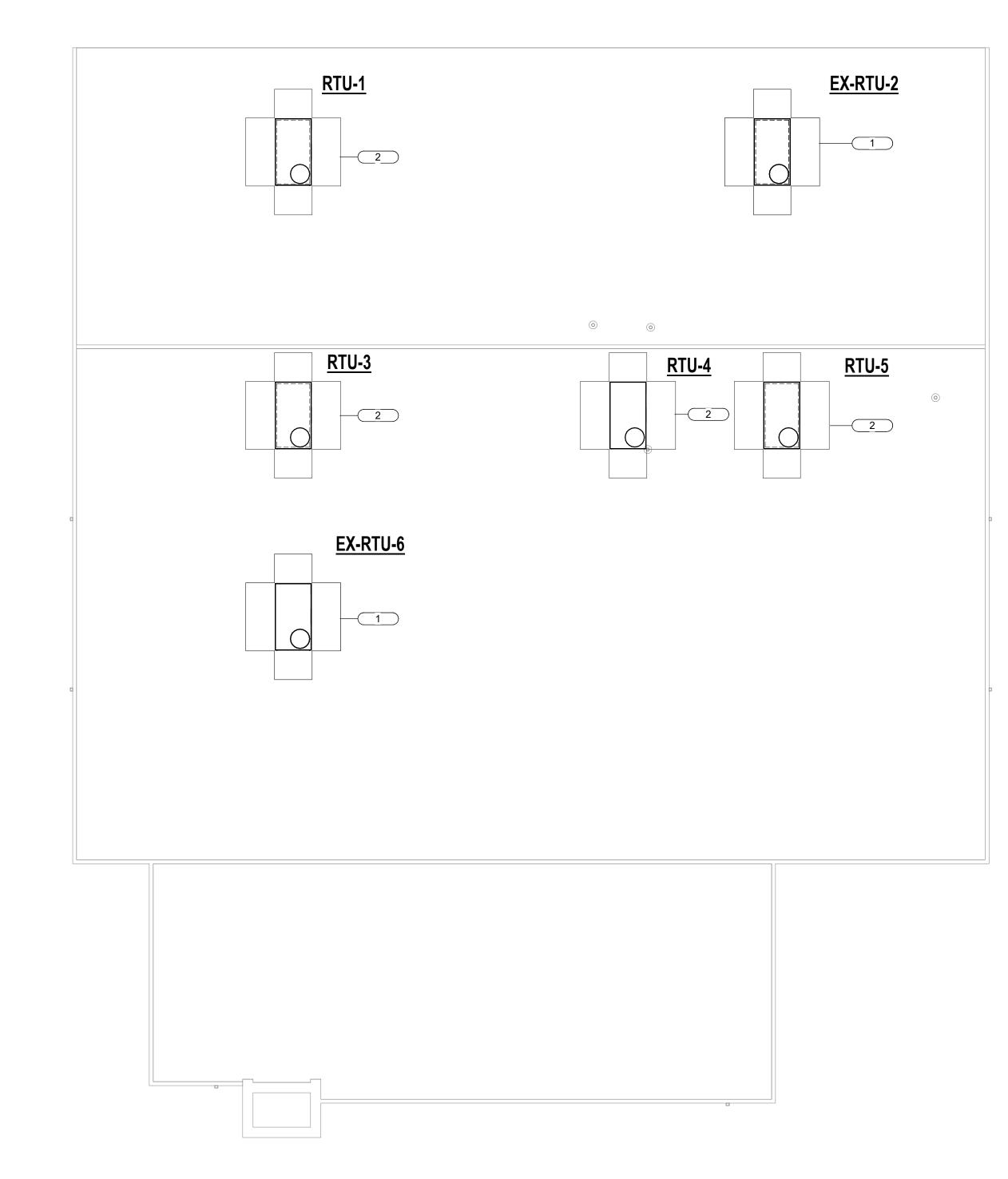
CELEBRATING

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	ROOF TOP UNIT SCHEDULE															
						COOLING			ELECTRIC							
MARK	MODEL	MANUFACTURER	TONNAGE	CFM	OA CFM	TOTAL CAPACITY (COOLING)	COOLING EAT	COOLING LAT	MCA	MOCP	VOLTAGE	PHASE	FAN HP	EER	WEIGHT	NOTES
RTU-1	KHB036S4B	Lennox	3	1200	120	35.4 Btu/h	65.0	55.3	63 A	70 A	240 V	1	.75	11.0	667.00 lbf	1
RTU-3	KHB048S4B	Lennox	4	1600	160	46.6 Btu/h	65.0	55.7	69 A	80 A	240 V	1	.75	11.0	782.00 lbf	1
RTU-4	LRP14HP036	Lennox	3	1208	120	34.3 Btu/h	65.0	55.7	23 A	30 A	240 V	1	.50	11.0	406.00 lbf	1
RTU-5	LRP14HP030	Lennox	2.5	1050	100	0.0 Btu/h	65.0	76.9	25 A	30 A	240 V	1	.50	11.0	396.00 lbf	1

E	EXISTING RO	IT SCHEDU	JLE		
MARK MODEL		MANUFACTURER	TONNAGE	NOTES	
EX-RTU-2	KHB030S4D	Lennox	2.5	1	
EX-RTU-6	LRP14HP048	Lennox	4.0	1	





INSTALL PRESERVED RTU IN DOWN FLOR ORIENTATION ON NEW DOWNFLOW CURB.
 ATTACH TO EXISTING DUCTWORK.

 INSTALL NEW RTU IN DOWN FLOW ORIENTATION ON NEW DOWNFLOR CURB. ATTACH TO EXISTING DUCTWORK.



www.cphcorp.com
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A & E Firm

ADDRESS CITY, STATE, ZIPCODE Ph:TBD-Office Phone

Plans Prepared By : CPH, Inc.

State of Florida Licenses: Architect No. AA2600926 Engineer No. 3215 Landscape No. LC0000298 Surveyor No. 7143

Engineer of Record ##/##/2021

TBD-Mech License
TBD-Mech Engineer

+YEARS

**GP**h

Designed: JAD
Drawn: JNM

Checked:

Job No.: E6611

03/01/2023 © 2023

VILLE TOWN HALL ROOF IMPROVEMENTS 7 EAST KENNEDY BLVD. TONVILLE, FLORIDA 32751

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