- A. THE GENERAL CONDITIONS OF THE GENERAL SPECIFICATIONS, ALONG WITH ALL APPLICABLE INSTRUCTIONS TO BIDDERS, SHALL FORM A PART OF THIS SECTION OF THE SPECIFICATIONS.
- B. REFERENCE IS MADE TO REQUISITES FOR BIDDERS AND CONTRACTORS UNDER OTHER SECTIONS OF THESE SPECIFICATIONS, WHICH SHALL BE CONSIDERED BINDING, UNLESS OTHERWISE NOTED UNDER THIS
- EACH CONTRACTOR SHALL THOROUGHLY ACQUAINT HIMSELF WITH THE CONSTRUCTION DETAILS, BOTH ON TENANT CONSTRUCTION DRAWINGS AND LANDLORD'S AS REFERRED TO. BEFORE SUBMITTING HIS BID AS NO ALLOWANCES WILL BE MADE BECAUSE OF CONTRACTOR'S UNFAMILIARITY WITH THESE DETAILS. ALL PERFORMANCE OF CONSTRUCTION SHALL BE AS REQUIRED BY THE PACE OF THE GENERAL CONSTRUCTION.

INSPECTION OF SITE ALL PROPOSALS SHALL PRECLUDE THAT CONTRACTOR IS FAMILIAR WITH JOBSITE CONDITIONS AND UTILITY LOCATIONS AND THE LACK OF SPECIFIC INFORMATION ON THE DRAWINGS SHALL NOT RELIEVE THE CONTRACTOR OF ANY RESPONSIBILITY.

ALL PERMITS AND LICENSES NECESSARY FOR THE PROPER EXECUTION OF THE WORK SHALL BE SECURED AND PAID FOR BY THE SUBCON-TRACTOR INVOLVED.

ALL WORK UNDER THIS CONTRACT SHALL COMPLY WITH THE PROVISIONS OF THE SPECIFICATIONS, DRAWINGS OR AS DIRECTED BY THE OWNER, AND SHALL SATISFY ALL APPLICABLE CODES, ORDINANCES, AND/OR REGULATIONS OF THE GOVERNING BODIES, WHETHER SO SHOWN OR NOT, AND ALL MODIFICATIONS REQUIRED BY SUCH AUTHORITIES SHALL BE MADE BY THE CONTRACTOR WITHOUT ANY ADDITIONAL COST TO OWNER.

MATERIALS AND WORKMANSHIF A. ALL MANUFACTURED ARTICLES, MATERIALS, AND EQUIPMENT SHALL APPLIED AS RECOMMENDED BY THE MANUFACTURERS, AND UN-LESS OTHERWISE SPECIFIED SHALL BE NEW, AND FREE FROM ANY AND ALL DEFECTS. LIKE MATERIALS USED SHALL BE OF THE SAME MANUFACTURE AND QUALITY UNLESS OTHERWISE SPECIFIED.

B. ALL WORK UNDER THIS CONTRACT SHALL BE PERFORMED BY COM-PETENT WORKMEN AND EXECUTED IN A NEAT AND WORKMANLIKE MANNER. WORK SHALL BE PROPERLY PROTECTED DURING CON-STRUCTION AND COMPLETION, INSTALLATION SHALL BE THOROUGHLY CLEANED OF ALL DEBRIS PRESENT AS A RESULT OF THIS CONTRACT AND SHALL BE REMOVED FROM THE PREMISES, DO NOT ABANDON.

EACH SUBCONTRACTOR SHALL COMPLY WITH ALL LAWS, ORDINANCES. RULES AND REGULATIONS BEARING ON THE CONDUCT OF THE WORK AS DRAWN AND SPECIFIED. IF A SUBCONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT A VARIANCE, HE SHALL PROMPTLY NOTIFY THE GENERAL CONTRACTOR AND THE TENANT IN WRITING. IF ANY SUBCOMTRACTOR PERFORMS ANY WORK KNOWING IT TO BE CONTRARY TO LAWS, ORDINANCES, RULES AND REGULATIONS AND WITHOUT GIVING SUCH NOTICE, THE SUBCONTRACTOR SHALL BEAR ALL COSTS ARISING THEREFROM.

PROTECTION OF WORK AND PROPERTY

- A. EACH SUBCONTRACTOR SHALL CONTINUOUSLY MAINTAIN ADEQUATE PROTECTION OF ALL HIS WORK FROM DAMAGE AND SHALL PROTECT THE OWNER'S PROPERTY FROM INJURY OR LOSS ARISING FROM HIS WORK. ANY SUCH DAMAGE, INJURY, OR LOSS, EXCEPT SUCH AS MAY BE DIRECTLY DUE TO CAUSES BEYOND HIS CONTROL AND NOT TO HIS FAULT OR NEGLIGENCE, SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR. HE SHALL ADEQUATELY PROTECT ADJACENT PROPERTY AS WELL.
- B. EACH SUBCONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS FOR THE SAFETY OF THEIR EMPLOYEES ON THE WORK AND SHALL COMPLY WITH ALL PROVISIONS OF FEDERAL. STATE AND LOCAL BUILDING CODES AND SAFETY LAWS TO PREVENT ACCIDENTS OR INJURY TO PERSONS ON OR ADJACENT TO THE PREMISES WHERE THE WORK IS BEING PERFORMED. EACH SUBCONTRACTOR SHALL MAINTAIN ALL INSURANCE REQUIRED TO PROTECT HIMSELF, THE OWNER AND TENANT FOR THE DURATION OF THE WORK AGAINST PROPERTY DAMAGE AND PUBLIC LIABILITY.

CHANGES IN THE WORK THE TENANT, WITHOUT INVALIDATING THE CONTRACT, MAY ORDER EXTRA WORK OR MAKE CHANGES BY ALTERING, ADDING TO, OR DEDUCTING FROM THE WORK, WITH CONTRACT SUM BEING ADJUSTED ACCORDINGLY.

<u>COOPERATION</u> ALL WORK UNDER THESE SPECIFICATIONS SHALL BE ACCOMPLISHED IN CONJUNCTION WITH OTHER CONTRACTORS AND TRADES OF THIS PROJECT IN A MANNER WHICH WILL ALLOW EACH CONTRACTOR AND TRADE SUF-FICIENT TIME AT THE PROPER STAGE OF CONSTRUCTION TO FULFILL HIS CONTRACTS. CONTRACTORS SHALL CONTACT OWNER FOR INSTRUCTIONS SHOULD ANY QUESTIONS ARISE BETWEEN TRADES AS TO THE INSTALL-ATION OF LINES, DUCTS, CONDUITS, FIXTURES, OR EQUIPMENT, OR SHOULD IT APPEAR DESIRABLE TO ANY GENERAL CONSTRUCTION WHICH WOULD AFFECT THE APPEARANCE OR STRENGTH OF THE STRUCTURE.

SUBSTITUTION OF MATERIALS MANUFACTURERS ARE LISTED ON PLANS TO ESTABLISH A STANDARD. THE PRODUCTS OF OTHER MANUFACTURERS WILL BE ACCEPTABLE, IF IN THE OPINION OF THE TENANT. THE SUBSTITUTE MATERIAL IS OF QUALITY FOUAL TO OR BETTER THAN THE MATERIAL SPECIFIED. AND WILL SERVE WITH EQUAL EFFICIENCY AND DEPENDABILITY, FOR THE PURPOSE OF WHICH THE ITEMS SPECIFIED WERE INTENDED.

SHOP DRAWINGS SHOP DRAWINGS AND CATALOG DATA ON ALL MAJOR ITEMS OF EQUIPMENT AND SYSTEMS. AND OTHER SUCH ILLUSTRATIVE MATERIAL THAT MAY BE CONSIDERED NECESSARY BY THE TENANT, SHALL BE SUBMITTED BY THIS CONTRACTOR IN ADEQUATE TIME TO PREVENT DELAY AND/OR CON-STRUCTION MODIFICATIONS.

DRAWINGS AND SPECIFICATIONS

- A. THE DRAWINGS DIAGRAMMATICALLY INDICATE THE LOCATIONS OF THE VARIOUS LINES, DUCTS, CONDUITS, FIXTURES, AND EQUIPMENT AND THE METHOD OF CONNECTING AND CONTROLLING THEM. IT IS NOT INTENDED TO SHOW EVERY CONNECTION IN DETAIL AND ALL FITTINGS REQUIRED FOR A COMPLETE SYSTEM.
- B. SHOULD ANY CHANGES BE DEEMED NECESSARY BY THE CONTRACTOR, TO ANY ITEMS SHOWN ON CONTRACT DRAWINGS, SHOP DRAWINGS, DESCRIPTIONS, AND THE REASON FOR THE PROPOSED CHANGES SHALL BE SUBMITTED TO THE OWNER FOR APPROVAL.

- A. THE CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE SATISFACTORY AND COMPLETE EXECUTION OF ALL WORK INCLUDED IN HIS CONTRACT HE SHALL PRODUCE COMPLETE AND FULLY OPERATIONAL SYSTEMS AND PROVIDE ALL INCIDENTAL ITEMS REQUIRED AS PART OF HIS WORK, REGARDLESS OF WHETHER SUCH ITEM IS PARTICULARLY SPECIFIED OR INDICATED. FOR EXAMPLE, ON SINK INSTALLATIONS, ESCUTCHEONS SHALL BE PROVIDED FOR COUNTERTOP PENETRATIONS, ALTHOUGH THEY WERE NOT SPECIFICALLY IDENTIFIED IN THE CONTRACT DOCUMENTS.
- B. CONTRACTOR SHALL SUPPLY TO LANDLORD AND TENANT A CERTIFIED AIR BALANCE REPORT AT COMPLETION OF PROJECT. THIS SHALL BE REQUIRED FOR BOTH REMODELED AND NEW STORES.

HEATING, VENTILATING AND AIR CONDITIONING

- THE WORK COVERED BY THIS SECTION OF THESE SPECIFICATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE RESPECTIVE DRAWINGS, INFORMATION OR INSTRUCTIONS TO BIDDERS, GENERAL CONDITIONS, ADDENDA, OR DIRECTIVES WHICH MAY BE ISSUED BY THE OWNER, SHALL BE COMPLIED WITH IN EVERY ASPECT
- B. THE LISTING HEREIN OF AN ARTICLE OR MATERIAL, OPERATION OR METHOD, REQUIRES THAT THE CONTRACTOR SHALL FURNISH AND INSTALL EACH ITEM LISTED, UNLESS SPECIFICALLY NOTED TO THE CONTRARY. THE CONTRACTOR SHALL PERFORM EACH OPERATION PRESCRIBED OR LISTED ACCORDING TO THE CONDITIONS STATED.
- EXAMINATION OF SITE

 ALL CONTRACTORS SUBMITTING PROPOSALS FOR THIS WORK SHALL FIRST EXAMINE THE SITE AND ALL EXISTING CONDITIONS AFFECTING HIS WORK.

 ALL PROPOSALS SHALL SPECIFY, IN WRITING, ALL SUCH CONDITIONS

 THE WORK LINDER THIS CONTRACT THAT MAY ALTER OR AFFECT THÉ WORK UNDER THIS CONTRACT.

FURNISH ALL MATERIALS, EQUIPMENT, AND LABOR NECESSARY FOR A COMPLETE AND FULLY OPERATIONAL HEATING, VENTILATING, AND AIR CONDITIONING SYSTEM EXCEPT AS SPECIFICALLY EXCLUDED BY DRAWINGS AND/OR BY TENANT'S DIRECTIONS.

<u>EQUIPMENT</u>

- A. EXISTING ELECTRIC HEATING/COOLING ROOFTOP UNIT TO REMAIN. REFER TO MECHANICAL PLAN FOR ADDITIONAL INFORMATION.
- B. FILTERS FILTERS SHALL BE OF THE THROW AWAY TYPE WHEREVER POSSIBLE. IF FILTERS ARE BY NECESSITY THE PERMANENT TYPE, THEY MUST BE OF THE CLEANABLE, HIGH VELOCITY TYPE AND SHALL BE AMERICAN AIR FILTERS. AIR MAYS. EVANS. OR APPROVED EQUAL. FILTERS SHALL BE OF THE OPTIMUM THICKNESS AND DESIGN FACE VELOCITY SHALL NOT EXCEED 500 FPM. INSTALLATION OF THE AIR CONDITIONING UNIT SHALL NOT IMPEDE OR CONFLICT WITH ACCESS TO FILTERS. IF THE FILTERS ARE IN FRAME HOLDERS, HOLDERS SHALL BE PROVIDED WITH A LEFT HANDLE.
- C. THE HVAC SUBCONTRACTOR SHALL IDENTIFY ALL ROOF MOUNTED HVAC EQUIPMENT AND RELATED ACCESSORIES WITH 2" HIGH PAINTED STENCILED LETTERS OF THE STORE NAME ON ALL SIDES OF EQUIPMENT.
- D. ALL ROOFTOP UNITS SHALL BE EQUIPPED WITH COMMERCIAL GRADE PROGRAMMABLE THERMOSTAT WITH REMOTE SENSORS. HEATING AND COOLING THERMOSTAT CAPABLE OF BEING ADJUSTED TO 55°F HEATING AND 85°F COOLING. DESIGN AND STANDARD CONDITIONS FOR THERMOSTAT OPERATION SHALL BE AS FOLLOWS: COOLING: 75°F MAXIMUM OCCUPIED COOLING TEMPERATURE

HEATING: 70°F MAXIMUM OCCUPIED HEATING TEMPERATURE 60°F HEATING NIGHT SETBACK.

85°F COOLING NIGHT SETBACK.

HEATING OR COOLING EQUIPMENT IN UNOCCUPIED MODE. DEADBAND: CAPABLE OF MAINTAINING A 5°F DEADBAND. CLOCK: 7 DAY CAPABLE OF 7 DIFFERENT DAY SCHEDULES.

FAN: CONTINUOUS IN OCCUPIED AND RECOVERY MODE AND WITH

OVERNIGHT: HAVE A 2 HOUR OVERRIDE ACCESSIBLE TO MANAGER. BACKUP: CAPABLE OF MAINTAINING PROGRAMMED SETTING FOR AT LEAST 10 HOURS WITHOUT POWER.

E. EXHAUST FANS 1. TOILET EXHAUST- REFER TO M1.0 SHEET FOR ADDITIONAL

INFORMATION.

- A. SQUARE/RECTANGULAR DUCTWORK SHALL BE CONSTRUCTED OF NEW DUCTBOARD, MATCH EXISTING TYPE. FIELD VERIFY. MIN R VALUE R-6.
- B. ROUND DUCTWORK SHALL BE CONSTRUCTED OF NEW GALVANIZED PRIME GRADE SHEET STEEL. (USED FOR TRANSFER GRILLES) ALL 90 DEGREE ELBOWS FOR ROUND DUCTWORK SHALL BE FIVE (5) PIECE. ALL LONGITUDINAL SEAMS SHALL BE FORMED BY PITTSBURGH LOCKS. JOINTS SHALL BE SWAGGED WITH ONE-HALF INCH (1/2") OVERLAP.
- C. ALL SUPPLY AIR DUCTS, RETURN AIR DUCTS AND OUTSIDE AIR DUCTS SHALL BE GALVANIZED STEEL WITH 2.5" THICK (MINIMUM R-6) EXTERNAL ACOUSTICAL AND THERMAL INSULATION. ONLY REQUIRED ON NEW DUCTWORK
- D. FLEXIBLE AIR DUCT FOR CONNECTIONS BETWEEN S.M. DUCT AND DIFFUSER SHALL BE AIR DUCT LISTED BY UNDERWRITERS LABORATORIES UNDER UL STANDARD 181 AS A CLASS 1 FLEXIBLE AIR DUCT AND COMPLYING WITH NFPA STANDARDS 90A AND 90B. DUCT SHALL BE FACTORY MADE AND COMPOSED OF A CPE LINER DUCT PERMANENTLY BOUNDED TO A COATED SPRING STEEL WIRE HELIX AND SUPPORTING A FIBER GLASS INSULATING BLANKET. R.-6.0 LOW PERMEABILITY OUTER VAPOR BARRIER OF FIBER GLASS REINFORCED FILM LAMINATE SHALL COMPLETE THE COMPOSITE.
- E. CONTRACTOR SHALL SUPPLY AND INSTALL INSECT SCREENS ON ALL DUCT OPENINGS WHICH TERMINATE OUTDOORS. INSECT SCREENS SHALL BE 10 GAUGE, ONE-HALF INCH (1/2") MESH IN REMOVABLE GALVANIZED STEEL FRAMES.
- F. ALL DUCTWORK SHALL BE DESIGNED IN ACCORDANCE WITH THE PROCEDURES DESCRIBED IN THE LATEST EDITION OF THE AMERICAN SOCIETY OF HEATING REFRIGERATION AND AIR CONDITIONING ENGINEERS GUIDE (ASHRAE), FABRICATED AND INSTALLED IN ACCORDANCE WITH THE METHODS RECOMMENDED IN THE SHEET METAL AND AIR CON-DITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) HVAC DUCT CONSTRUCTION STANDARDS - METAL AND FLEXIBLE
- 1. ALL JOINTS, LONGITUDINAL AND TRANSVERSE SEAMS, AND CONNECTIONS IN DUCTWORK MUST BE SECURELY SEALED USING WELDMENTS: MECHANICAL FASTENERS WITH SEALS. GASKETS. OR MASTICS; MESH AND MASTIC SEALING SYSTEMS; OR TAPES. TAPES AND MASTICS MUST BE LISTED AND LABELED IN ACCORDANCE WITH UL 181A OR UL 181B. ALL LONGITUDINAL AND TRANSVERSE JOINTS, SEAMS AND CONNECTIONS OF SUPPLY AND RETURN DUCTS OPERATING AT STATIC PRESSURES LESS THAN OR EQUAL TO 2" W.G. SHALL BE SECURELY FASTENED AND SEALED WITH WELDS GASKETS, MASTICS (ADHESIVES), MASTIC-PLUS-EMBEDDED FABRIC SYSTEMS OR TAPES INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- 2. MECHANICAL FASTENERS AND SEALS, MASTICS, OR GASKETS MUST BE USED WHEN CONNECTING DUCTS TO FANS AND OTHER AIR DISTRIBUTION EQUIPMENT.
- HANGERS AND SUPPORTS A. ALL HORIZONTAL DUCTS HAVING A DIMENSION OF 40 INCHES AND LESS SHALL BE SUPPORTED BY MEANS OF BAND IRON HANGERS OF NO. 18 U.S. GAUGE ATTACHED TO DUCT BY MEANS OF RIVETS, SCREWS OR CLAMPS, AND FASTENED TO STRUCTURE ABOVE BY TOGGLE BOLTS OR OTHER MEANS. EACH SECTION OF DUCTWORK SHALL HAVE AT LEAST ONE PAIR OF SUPPORTS. VERTICAL DUCTS SHALL BE SUPPORTED WITH 1-1/4" x 1-1/4" x 1-1/4" ANGLES
- B. ALL HORIZONTAL DUCTS HAVING A DIMENSION OF 40 INCHES AND MORE SHALL BE SUPPORTED BY MEANS OF ANGLE IRON TRAPEZE HANGERS. EACH SECTION OF DUCTWORK SHALL HAVE AT LEAST ONE PAIR OF SUPPORTS.

AT FLOOR PENETRATIONS.

- CONTRACTOR SHALL PROVIDE WATER TIGHT 24 GA. SHEET METAL FLASHINGS AT ALL EXTERIOR WALLS AND ROOF PENETRATIONS.
- B. ALL CUTTING OF ROOF OPENINGS, SUPPORTS FOR ROOF OPENINGS, PITCH PANS, ROOF CURBS, FLASHINGS, COUNTER FLASHINGS, REPAIR TO ROOF, ETC. ASSOCIATED WITH HVAC SUBCONTRACTOR SHALL BE INCLUDED IN THE RESPONSIBILITY OF THE HVAC SUBCONTRACTOR. HE SHALL EMPLOY THE LANDLORD'S ROOFERS FOR THIS WORK TO MAINTAIN THE ROOF WARRANTY.

- SPLITTER DAMPERS SHALL BE FABRICATED OF SHEET STEEL NOT LESS THAN NO. 16 U.S. GAUGE WITH THE LEADING EDGE HEMMED EACH DAMPER TO BE SIZED ADEQUATELY TO COVER THE SMALLER OF THE TWO OPENINGS IT CONTROLS. DAMPERS SHALL BE CONTROLLED AS FOLLOWS:
- EXPOSED OR ACCESSIBLE DUCTWORK LOCKING QUADRANTS EQUAL TO YOUNG REGULATOR NO. 1 WITH DAMPER ROD END BEARINGS ON
- CONCEALED DUCTWORK LOCKING QUADRANT EQUAL TO YOUNG REGULATOR NO. 315 (CHROMIUM PLATED WITH DAMPER ROD END BEARINGS ON BOTH ENDS).
- B. VOLUME DAMPERS SHALL BE OF THE OPPOSED INTERLOCKING TYPE AS MANUFACTURED BY AMERICAN FOUNDRY AND FURNACES CO. (AFFCO) OR EQUAL. BLADES SHALL BE OF NO. 16 GAUGE SHEET METAL AND SHALL NOT EXCEED 48" IN LENGTH OR 12" IN WIDTH. BLADES SHALL BE ON ONE-HALF INCH (1/2") DIAMETER RUSTPROOF AXLE. BEARINGS TO BE OF THE SELF-LUBRICATING FERRULE TYPE.
- FIRE DAMPERS SHALL BE SUPPLIED AND INSTALLED BY HVAC CONTRACTOR AT DUCT PENETRATIONS IN FIRE RATED WALLS, FLOORS, CEILINGS AND ROOF AS REQUIRED. COORDINATE WITH LANDLORD LOCAL FIRE MARSHALL AND ALL CODES AND GOVERNING AUTHORITES HAVING JURISDICTION.
- D. FIELD FABRICATED TURNING VANES SHALL BE ACCEPTABLE IN SQUARE ELBOWS. PROVIDE AND INSTALL BARBER—COLMAN AIRTURNS OR EQUAL. TURNING VANES SHALL BE OF THE SAME GAUGE METAL AS THE DUCT IN WHICH THEY ARE INSTALLED. RADIUS ELBOWS SHALL HAVE A CENTER LINE RADIUS OF ONE AND ONE-HALF (1-1/2)TIMES THE DUCT WIDTH.

METAL AND CONSTRUCTED ACCORDING TO RECOMMENDED PRACTICES

DUCTWORK FOR EXHAUST OR OUTSIDE SUPPLY AIR SHALL BE ALL

OF THE LATEST ISSUE OF ASHRAE AND SMACNA STANDARDS.

SUPPORT OF DUCT SYSTEM

HANGER DESIGN SHALL BE AS DESCRIBED IN THE LATEST EDITION OF THE "SMACNA" MANUAL. REINFORCEMENT MEMBERS MAY BE USED TO SUPPORT DUCT SYSTEM PROVIDED DETAILS OUTLINED IN THE "SMACNA" MANUAL ARE ADHERED TO.

DUCTS SHALL BE SUPPORTED AT ALL TURNS AND TRANSITIONS AND NOT MORE THAN 8'-0" O.C. STRAIGHT DUCTS UP TO 59" MAX. DIMENSIONS SHALL BE SUPPORTED 6'-0" O.C. DUCTS OVER 60" MAX. DIMENSIONS SHALL BE SUPPORTED AT 4'-0" O.C.

ALL DUCTS SHALL BE REINFORCED ACCORDING TO THE LATEST EDITION OF SMACNA MANUAL. MATERIALS FOR REINFORCEMENT MEMBERS SHALL BE GALVANIZED STEEL. ALL SCREWS AND WASHERS SHALL BE PLATED OR GALVANIZED.

TESTING AND ADJUSTING

- CONTRACTOR SHALL DEMONSTRATE OPERATION OF SYSTEM TO FULL SATISFACTION OF TENANT, SHALL BALANCE AIR FLOW IN ACCORDANCE WITH AIR QUANTITIES ON DRAWINGS AND SHALL RECORD VOLUME READINGS IN ACCORDANCE WITH ASHRAE AND PROVIDE SAME TO TENANT OPERATION AND MAINTENANCE DOCUMENTATION MUST BE PROVIDED TO THE OWNER THAT INCLUDES AT LEAST THE FOLLOWING INFORMATION:
- A. EQUIPMENT CAPACITY (INPUT AND OUTPUT) AND REQUIRED MAINTENANCE ACTIONS.
- B. EQUIPMENT OPERATION AND MAINTENANCE MANUALS. C. HVAC SYSTEM CONTROL MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS; DESIRED OR FIELD-DETERMINED SET POINTS MUST BE PERMANENTLY RECORDED ON CONTROL DRAWINGS, AT CONTROL DEVICES, OR, FOR DIGITAL CONTROL SYSTEMS, IN PROGRAMMING COMMENTS.
- D. COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE.
- ALL PIPING SHALL WITHSTAND AIR PRESSURE TESTING PER GOVERNING PLUMBING CODE.

ALL MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER DATE OF ACCEPTANCE. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIONAL AND ACCEPTANCE BY TENANT SHALL BE A CONDITION OF THIS CONTRACT. ALL WORK FOUND TO BE DEFECTIVE SHALL BE REPAIRED OR REPLACED BY THIS SUBCONTRACTOR WITHOUT ADDITIONAL COST TO THE TENANT.

ACCESSORY ITEMS

ALL MANUAL DAMPERS, FIRE DAMPERS, TURNING VANES, REGISTER CON-NECTIONS, ACCESS DOORS OR OTHER ASSOCIATED ACCESSORIES SHALL BE INSTALLED ACCORDING TO THE LATEST EDITION OF "SMACNA" MANUAL

A. SHOP DRAWINGS-THE SPRINKLER CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE TENANT'S LANDLORD AND TO THE APPROPRIATE AUTHORITIES AND INSURANCE UNDERWRITER FOR THEIR APPROVAL. A COPY OF THE APPROVAL LETTER FROM THESE AUTHORITIES SHALL BE FORWARDED TO THE TENANT, LANDLORD AND DESIGN ARCHITECT

NOTE FOR GENERAL CONTRACTOR:

IT IS THE RESPONSIBILITY OF THE TENANT'S GENERAL CONTRACTOR TO MAKE USE OF APPLICABLE NOTES AND SPECIFICATIONS LISTED ON THIS SHEET AS THEY MAY PERTAIN TO THE SPECIFIC JOB.

FIRE PROTECTION CONTRACTOR'S NOTES

FIRE PROTECTION CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING AND FULLY FAMILIARIZE HIMSELF WITH THE EXISTING CONDITIONS. ANY DEVIATIONS OR DISCREPANCIES BETWEEN THESE DRAWINGS AND ACTUAL EXISTING CONDITIONS SHALL BE PROMPTLY BROUGHT TO THE ATTENTION OF THE TENANT'S PROJECT MANAGER FOR CLARIFICATION. BID SHALL INCLUDE ALL COSTS DUE TO EXISTING CONDITIONS.

FIRE PROTECTION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL LANDLORD SPECIFIC DESIGN AND INSTALLATION REQUIREMENTS, AND SHALL INCLUDE ALL COSTS DUE TO THOSE REQUIREMENTS IN THE BASE BID.

FIRE PROTECTION CONTRACTOR SHALL DESIGN AND INSTALL A COMPLETE HYDRAULICALLY CALCULATED WET PIPE SPRINKLER SYSTEM FOR THE ENTIRE DEMISED SPACE INDICATED HEREIN THESE DOCUMENTS. THE SYSTEM SHALL BE DESIGNED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA-13 FOR ORDINARY HAZARD OCCUPANCY, PROVIDING A MINIMUM SPRINKLER DENSITY OF .20 GPM OVER THE MOST REMOTE 1500 SQ.FT. OF FLOOR AREA.

4. FIRE PROTECTION CONTRACTOR SHALL PREPARE AND FILE SPRINKLER SHOP DRAWINGS AND HYDRAULIC CALCULATIONS WITH THE LANDLORD, THE LANDLORD'S INSURANCE RATING AGENCY, THE ARCHITECT, AND ALL STATE, LOCAL AND MUNICIPAL AUTHORITIES IN JURISDICTION, AND SHALL RECEIVE ALL NECESSARY APPROVALS PRIOR TO COMMENCEMENT OF ANY INSTALLATION WORK.

6. REMOVE OR RELOCATE EXISTING SPRINKLER HEADS AND FURNISH AND INSTALL NEW AS PER NFPA-13 RECOMMENDATIONS, TO PROVIDE ADEQUATE COVERAGE OF THE ENTIRE DEMISED PREMISIS.

6. SPRINKLER HEAD SPACING SHALL NOT EXCEED 130 SQ.FT. PER HEAD.

NEW SPRINKLER HEADS SHALL BE APPROVED STANDARD TYPES. PENDANT AND UPRIGHT, AND DESIGNED FOR ORDINARY HAZARD COVERAGE. CHROME PLATED "GRINNELL", "VIKING", "STAR" OR EQUAL. SEE PLANS FOR SPRINKLER HEAD TYPES.

8. ALL SPRINKLER WORK SHALL COMPLY WITH ALL NFPA-13 RECOMMENDATIONS, AND SHALL BE PERFORMED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE LANDLORD, LOCAL FIRE RATING ORGANIZATION, FIRE AND/OR BUILDING DEPARTMENTS AND ALL AUTHORITIES IN JURISDICTION.

9. ALL SPRINKLER SYSTEM WORK SHALL BE SUBJECT TO THE ACCEPTANCE AND APPROVAL OF THE LANDLORD'S INSURORS AND SHALL BE DESIGNED TO SECURE THE BEST POSSIBLE INSURANCE RATES ON THE BUILDING AND IT'S CONTENTS.

10. FIRE PROTECTION CONTRACTOR SHALL FILE FOR, OBTAIN, AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.

11. FIRE PROTECTION CONTRACTOR SHALL ARRANGE FOR ANY SHUTDOWNS OF THE EXISITING SYSTEM WITH THE LANDLORD AND LOCAL FIRE DEPARTMENT REPRESENTATIVE, AND SHALL SECURE IN WRITING PRIOR TO SHUTDOWN, APPROVALS FROM SAME. ADDITIONALLY, THE FIRE PROTECTION CONTRACTOR SHALL PAY FOR ANY LABOR, MATERIALS, AND FEES NECESSARY FOR SHUTDOWN.

12. FIRE PROTECTION CONTRACTOR SHALL CAREFULLY EXAMINE ALL EXISTING SPRINKLER SYSTEM PIPING AND COMPONENTS, AND SHALL REPAIR OR REPLACE ANY LEAKING OF DEFECTIVE PIPING OR COMPONENTS.

13. SPRINKLER PIPE MATERIAL AND INSTALLATION SHALL MATCH EXISTING.

14. FIRE PROTECTION CONTRACTOR SHALL PROVIDE ALL REQUIRED TEST AND DRAIN CONNECTIONS, WHETHER OR NOT THEY ARE INDICATED HEREON THESE PLANS.

15. FIRE PROTECTION CONTRACTOR SHALL PROVIDE AND INSTALL ALL NECESSARY ALARM INITIATING DEVICES AND SUPERVISORY DEVICES, AND SHALL COORDINATE THE ELECTRICAL REQUIREMENTS FOR THEM WITH THE E.C. AND/OR FIRE ALARM CONTRACTOR FOR THEIR CONNECTION TO THE FIRE ALARM SYSTEM.

I6. FIRE PROTECTION CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES TO ANY PORTION OF THE EXISTING SPRINKLER SYSTEM ON ANY PORTION OF THE BUILDING INCURRED BY HIM DURING CONSTRUCTION.

17. UPON COMPLETION OF THE INSTALLATION, FIRE PROTECTION CONTRACTOR SHALL DEMONSTRATE TO THE SATISFACTION OF THE AUTHORITIES IN JURISDICTION AND THE LANDLORD'S INSURANCE UNDERWRITERS, THE OPERATION OF THE ENTIRE PROTECTION SYSTEM, INCLUDING ALL ALARM INITIATING DEVICES AND SYSTEM SUPERVISORY DEVICES.

REUSE OF EXISTING EQUIPMENT

EXISTING AIR CONDITIONING EQUIPMENT SHALL BE REUSED AS INDICATED ON THE DRAWINGS. POINTS OF SERVICE SHALL INCLUDE, BUT NOT BE LIMITED TO, THE

REMOVE EXISTING AIR FILTERS AND REPLACE WITH NEW PLEATED AIR FILTERS. THOROUGHLY CLEAN ALL INTAKE LOUVERS OR SCREENS AND BOTH SIDES OF EVAPORATOR AND CONDENSING COILS.

CHECK ALL BELTS FOR WEAR, ALIGNMENT AND PROPER TENSION (ADJUST AND REPLACE AS NEEDED)

TIGHTEN MOTOR MOUNTS AS REQUIRED.

INSPECT AND LUBRICATE MOTORS, BEARINGS, AND SHAFTS AS PER MANUFACTURERS

INSPECT REFRIGERANT SYSTEM FOR LEAKS AND PROPER CHARGE, REPAIR LINES AND ADD REFRIGERANT IF NECESSARY. INSPECT FILTER/DRYER AND REPAIR/REPLACE AS REQUIRED.

THOROUGHLY CLEAN INTERIOR OF UNIT, INCLUDING COILS, CONDENSATE DRAIN PAN (VERIF DRAINS PROPERLY), BLOWER WHEEL, AND DAMPER BLADES. CONTRACTOR MAY CLEAN AND REUSE EXISTING DUCTWORK IF IT IS IN GOOD CONDITION

AND MATCH THE SIZE AND SPECIFICATIONS OF WHAT IS CALLED OUT ON THESE CONSTRUCTION DOCUMENTS. CONTRACTOR SHALL PROVIDE NEW DUCTWORK, SUPPLY DIFFUSERS AND RETURN GRILLES

AS NECESSARY TO SATISFY THE INTENT OF THESE DRAWINGS. . ENTIRE HVAC SYSTEM SHALL CONFORM TO THE EXISTING BUILDING CONSTRUCTION AND ALI APPLICABLE STATE AND LOCAL CODES AND ALL LANDLORD CRITERIA.

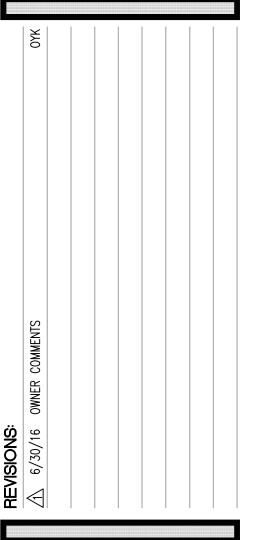
THE MECHANICAL CONTRACTOR MUST VERIFY ALL EXISTING CONDITIONS AND SERVICES AT $_{
m 2.}$ ALL WORK SHALL BE SCHEDULED SO AS NOT TO INTERRUPT THE NORMAL OPERATION OF

OTHER CONTRACTORS. 13. VERIFY AND RESET O/A THRU RTU TO SPACE AS SCHEDULED.

14. ALL WORK, EQUIPMENT AND ACCESSORIES TO BRING EXISTING SYSTEM TO GOOD WORKING CONDITION SHALL BE COVERED UNDER CONTRACTOR'S ORIGINAL BID AND AT NOT ADDITIONAL EXPENSE. CONTRACTOR SHALL VERIFY ALL ON SITE CONDITIONS PRIOR TO BID

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REGISTRATION SEAL



PROJECT NO. 150310 DATE: 10/14/15 DRAWN BY: STORE NUMBER: 404 PROTO: 2016R1 PROTOTYPE SET

SALES AREA 2,420 S.F. NON SALES 588 S.F.

3,008 S.F.

GROSS AREA

SHEET TITLE:

MECHANICAL