MECHANICAL GENERAL NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR VISITING THE SITE AND VERIFYING ALL EXISTING FIELD CONDITIONS PRIOR TO SUBMISSION OF HIS BID. THE CONTRACT DOCUMENTS INDICATE APPROXIMATE LOCATION OF EXISTING DUCTWORK AND PIPING AND ARE DIAGRAMMATIC IN NATURE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATION AND ROUTING OF THE NEW DUCTS.
2. CONTRACTOR IS RESPONSIBLE FOR COORDINATING HIS WORK WITH THE WORK OF ALL OTHER TRADES AND MAKING ANY NECESSARY MODIFICATIONS TO HIS WORK AT NO ADDITIONAL COST, INCLUDING ALL OFFSETS.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR RELOCATION OF ANY EXISTING MINOR INTERFERENCES, INCLUDING CONDUIT, HANGERS, ETC., AT NO ADDITIONAL COST.
4. HVAC CONTRACTOR SHALL REMOVE EXISTING EQUIPMENT AND MATERIALS PERTAINING TO HIS CONTRACT AS SPECIFIED OR AS REQUIRED WHETHER SHOWN ON THE DRAWINGS OR NOT, TO PREPARE FOR THE NEW WORK.
5. ALL WORK SHALL BE IN ACCORDANCE WITH LOCAL CODES. THESE CODES SHALL BE FOLLOWED AS MINIMUM PROVIDING HIGHER GRADES OF MATERIAL AND WORKMANSHIP WHERE REQUIRED BY THESE DOCUMENTS. PROVIDE ALL TESTS REQUIRED BY LOCAL CODES.
6. ALL PERMITS, FEES, LICENSES, APPROVALS AND OTHER ARRANGEMENTS FOR WORK SHALL BE OBTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE.
7. SUBMIT EQUIPMENT SPECIFICATIONS FOR REVIEW (AND/OR APPROVAL).
8. SUBMIT ASSEMBLED PRINTED INSTRUCTIONS FOR THE OPERATION AND MAINTENANCE OF EACH ITEM INSTALLED ALONG WITH EQUIPMENT CUTS AND CONTROL WIRING DIAGRAMS.
9. SUBMIT COORDINATED SHOP DRAWINGS FOR REVIEW. THE SHOP DRAWINGS SHALL INDICATE PIPING, DUCT, DIFFUSER AND THERMOSTAT LOCATIONS AND MUST BE SUBMITTED PRIOR TO FABRICATION AND INSTALLATION.
10. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIAL FOR ONE YEAR AFTER FINAL ACCEPTANCE AGAINST ALL DEFECTS OF MATERIAL, EQUIPMENT AND WORKMANSHIP.
11. PROVIDE COMPETENT OPERATING TECHNICIAN TO INSTRUCT THE GSA IN THE OPERATION AND MAINTENANCE OF THE INSTALLED EQUIPMENT.
12. CONTRACTOR SHALL SUBMIT CERTIFIED BALANCE REPORTS FOR APPROVAL. BALANCING TO BE WITHIN ±10% OF THE REQUIRED VALUES. SUBMIT AS-BUILT DRAWING INDICATING A NUMBERING SYSTEM WHICH CORRELATES PLAN WITH BALANCE REPORT.
13. BELTS AND SHEAVE CHANGES REQUIRED TO MEET SPECIFIED AIR VOLUMES SHALL BE DONE AT NO ADDITIONAL COST.
14. THE DRAWING INDICATES GENERAL CHARACTER AND LOCATION OF WORK INCLUDED, BUT HAVING MINOR SPECIALTIES OMITTED WHICH ARE TO BE PROVIDED WITHOUT EXTRA COST.
15. CONTRACTOR IS RESPONSIBLE FOR COORDINATING DIFFUSER REGISTER GRILLE LOCATIONS. DIFFUSER LOCATIONS ON SHOP DRAWINGS ARE SUBJECT TO APPROVAL BY THE A/E.
16. MEDIUM PRESSURE/LOW PRESSURE DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA HIGH VELOCITY/LOW VELOCITY AND ASHRAE RECOMMENDATIONS.
17. ALL NEW DUCT TURNS, ELBOWS, ETC., SHALL BE INSTALLED WITH TURNING VANES OR MINIMUM 1-1/2 RADIUS ELBOWS.
18. PROVIDE VOLUME DAMPERS ON ALL LOW PRESSURE BRANCH TAKE-OFFS.
19. PROVIDE ALL HOLES, SLEEVES AND CAULKING FOR INSTALLATION OF THIS WORK. CAULKING TO CONFORM TO FIRE RATING OF WALLS & SLAB.
20. ALL EQUIPMENT SHALL BE CLEANED AND ADJUSTED AS REQUIRED TO OPERATE SATISFACTORILY AND WITNESSED BY BUILDING PERSONNEL.
21. VERIFY EXACT LOCATION OF THERMOSTATS WITH THE A/E PRIOR TO INSTALLATION.
22. CONTRACTOR TO CONFIRM ELECTRIC TEMPERATURE CONTROL LOCATIONS FOR EXHAUST FANS & A.C. UNITS ETC. AND EXTEND EXISTING CONTROL WIRING AND TERMINATE AT NEW STARTERS AS REQUIRED.
23. TYPE "L" COPPER PIPE WITH WROUGHT COPPER SOLDERED FITTINGS SHALL BE USED FOR CONDENSATE DRAIN LINES.
24. INSULATE CONDENSATE DRAIN LINES WITH ½" THICK FOAMED ELASTOMERIC INSULATION.
25. ALL PIPING SHALL BE PRESSURE TESTED UNDER THE SUPERVISION OF THE COR.
26. CONTRACTOR TO SUBMIT AS-BUILT DRAWINGS FOR DUCTWORK AND PIPING, INCLUDING THERMOSTAT LOCATIONS.

HEATING, VENTILATING & AIR CONDITIONING SYMBOL LIST

ABBREVIATIONS

DESIGNATION	DESCRIPTION
ABV	ABOVE
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AL	ACOUSTICAL LINING
BHP	BRAKE HORSE POWER
DN	DOWN
DWG	DRAWING
EXH	EXHAUST
FD	FIRE DAMPER
GPM	GALLONS PER MINUTE
GR	GRILLE
MBH	THOUSAND BTU PER HOUR
NK	NECK
TYP	TYPICAL
F.D.	FLOOR DRAIN

AIR DISTRIBUTION EQUIPMENT DESIGNATIONS

EF(EM)	EXHAUST FAN

PIPING LEGEND

HEATING	
DESIGNATION	DESCRIPTION
——(NAME)B——	EXISTING PIPING
—XX—(NAME)—XX—	PIPE TO BE REMOVED
AIR CONDITIONING AND REFRIGERATION	
——CWS——	CONDENSER WATER SUPPLY
——CWR——	CONDENSER WATER RETURN
——CD——	CONDENSATE DRAIN ABOVE FLOOR OR GRADE

HYDRONIC & REFRIGERATION EQUIP. DESIGNATIONS

DESIGNATION	DESCRIPTION
ACU	AIR CONDITIONING UNIT

AUTOMATIC TEMPERATURE CONTROL SYMBOLS

DESIGNATION	DESCRIPTION
(T)	THERMOSTAT (ELECTRIC OR PNEUMATIC)

MECHANICAL LEGEND

DUCTWORK	
DESIGNATION	DESCRIPTION
D	DUCT OFFSET (DOWN) IN DIRECTION OF FLOW
R	DUCT OFFSET (UP) IN DIRECTION OF FLOW
	DIRECTION OF FLOW

MECHANICAL LEGEND

AIR INLETS AND OUTLETS	
DESIGNATION	DESCRIPTION
TYPE (CFM) 1 200	INTERIOR AIR INLETS AND OUTLETS TAG (SEE SCHEDULE FOR NECK SIZE)
	EXHAUST GRILLE OR REGISTER
	SUPPLY GRILLE OR REGISTER

SYMBOLS

PIPING	
DESIGNATION	DESCRIPTION
	ELBOW, TURNED UP
	ELBOW, TURNED DOWN
	TEE, OUTLET UP
	TEE, OUTLET DOWN
	PRESSURE GAUGE
	STRAINER
	STRAINER, BLOW OFF
	THERMOMETER
	PETE'S PLUG

PIPING LEGEND

VALVES	
DESIGNATION	DESCRIPTION
	BALL
	BUTTERFLY
	GATE
	BALANCING VALVE W/PRESSURE SENSING PORTS
	AUTOMATIC FLOW CONTROL
VALVES, SPECIAL DUTY	
	CHECK, SWING GATE

REFERENCE SYMBOLS

DESIGNATION	DESCRIPTION
B 1 (EQUIPMENT DESIGNATION / NUMBER)	EQUIPMENT TAG
1	DETAIL OR ENLARGED PLAN (SAME DRAWING)
?	DETAIL OR ENLARGED PLAN (ON DIFFERENT DRAWING)
A	SECTION OR ELEVATION (SAME DRAWING)
?	SECTION OR ELEVATION (ON DIFFERENT DRAWING)
	MATCH LINE
	POINT OF CONNECTION
	WORK TO BE REMOVED
	FIRE DAMPER
	FLOOR DRAIN
NORTH	NORTH ARROW

NO.	REVISION	DATE
	FINAL	2/23/96

ENVIRONMENTAL SYSTEMS DESIGN
ESD CONSULTING ENGINEERS MECHANICAL - ELECTRICAL
55 EAST MONROE ST.-SUITE 1660
CHICAGO, ILLINOIS 60603
(312) 372-1200

J. MARTIN ASSOCIATES
Elevator Consultants
Williamsburg Commons
4 Apse Court
East Brunswick, N.J. 08816-6305
908-613-9600 FAX 908-613-9696

GENERAL SERVICES ADMINISTRATION
PUBLIC BUILDING SERVICE
CHICAGO IL

BUILDING	NAME	E. M. DIRKSEN (EMD) BUILDING
	ADDRESS	219 S. DEARBORN ST.
	CITY / STATE	CHICAGO IL
	NUMBER	
PROJECT	DESCRIPTION	ELEVATOR IMPROVEMENT FOR EMD BLDG
	NUMBER	IIL94004
DRAWINGS	DRAWN BY	ML
	CKD BY	KS
	DATE	2/23/96
	TITLE	GENERAL NOTES & SYMBOL LIST
	TYPE	MECHANICAL
	NUMBER	9 M 1

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