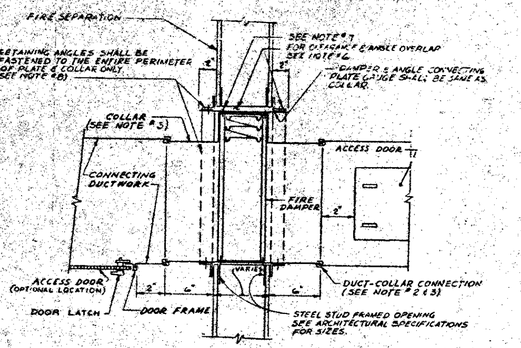
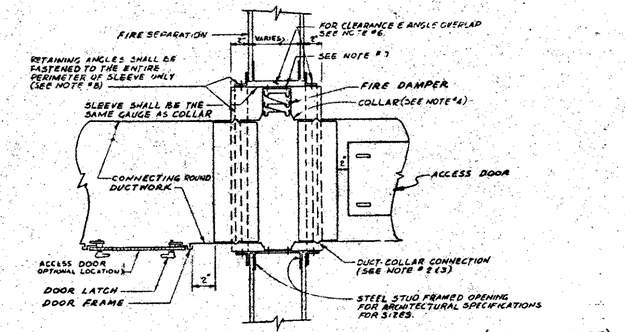


BRANCH OR MAIN DUCT WITH TYPE "B" FIRE DAMPER

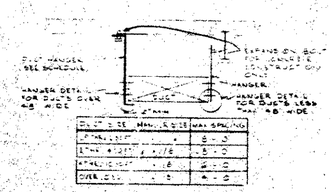


PERIPHERAL SUPPLY DUCT WITH TYPE "C" FIRE DAMPER (HIGH PRESSURE)

FIRE DAMPER NOTES

1. ALL FIRE DAMPERS SHALL BE RATED TO MAINTAIN THE RATING OF THE FIRE SEPARATION. THEY SHALL BE APPROVED AND LABELLED BY UNDERWRITER'S LABORATORIES (U.L.) AND BOARD OF STANDARDS AND APPEALS (B.S.A.). THE INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S U.L. APPROVED INSTRUCTIONS. DAMPERS SHALL BE AS MANUFACTURED BY AIR BALANCE INC., AIR DAMPER MFG. CORP., AIRSTREAM PRODUCTS, INC. OR AN APPROVED EQUAL.
2. ALL DUCT-COLLAR CONNECTIONS SHALL COMPLY WITH AS-HRAE & SMACNA.
3. CONNECTIONS BETWEEN COLLAR AND DUCTWORK SHALL BE BREAKAWAY TYPE, SUCH AS "S" SLIP, CRIMP, OR OTHER SLIP TYPE IN ACCORDANCE WITH SMACNA PLATE 35A, 4TH. EDITION, AND PLATE 1, SMACNA FIRE DAMPER GUIDE, 1970.
4. [illegible] GAUGE FOR DUCTS IN [illegible] OF 24" OR GREATER IN WIDTH.
5. AFTER THE INSTALLATION OF DAMPERS, THE CONTRACTOR SHALL SEAL AND TAPE ALL JOINTS FOR AIR TIGHTNESS. SEALANTS USED SHALL BE 3M COMPANY NO. 8001 MIRACLE ADHESIVE CORPORATION OR AN APPROVED EQUAL AND GREY VINYL DUCT TAPE AS MANUFACTURED BY NASHUA CORPORATION OR AN APPROVED EQUAL.
6. TO ALLOW FOR EXPANSION, DAMPERS SHALL HAVE 1/8" TOP CLEARANCE EQUIVALENT TO 1/32" FOR EACH FOOT OF DAMPER HEIGHT. THE SIDE CLEARANCE SHALL BE 1/8", FOR EACH FOOT OF DAMPER WIDTH DIVIDED EQUALLY TO THE RIGHT AND LEFT OF THE COLLAR. THE MAXIMUM CLEARANCE FOR THE TOP AND THE TOTAL OF BOTH SIDES SHALL BE 1/2" EACH. THE RETAINING ANGLES SHALL BE 1-1/2" x 1-1/2" x 12 GAUGE BENT ANGLE, SO THAT THERE WILL BE A MINIMUM OF 1" OF OVERLAP ON THE FIRE SEPARATION.
7. DAMPER SHALL BE SECURED TO COLLAR WITH EITHER 1/2" TACKWELDS, NO. 10 SHEET METAL SCREWS, 1/4" DIA. NUTS AND BOLTS, OR 3/16" STEEL POP RIVETS, ALL 12" ON CENTER.
8. RETAINING ANGLES SHALL BE SECURED TO COLLAR, SLEEVE OR PLATE WITH EITHER 1/2" TACK WELDS, NO. 10 SHEETMAL SCREWS, 1/4" DIA. NUTS AND BOLTS, OR 3/16" STEEL POP RIVETS, ALL 8" ON CENTER.
9. WHERE THE HUNG CEILING DOES NOT HAVE REMOVABLE TILES, AN ACCESS DOOR (FIRE RATED WHERE REQUIRED) SHALL BE INSTALLED IN CEILING NEAR LOCATION OF FIRE DAMPER.
10. ALL RETAINING ANGLES SHALL BE GALVANIZED STEEL.
11. ALL ACCESS DOORS SHALL BE LOCATED SO THAT THERE WILL NOT BE ANY INTERFERENCES FOR MAINTENANCE AND INSPECTION OF DAMPER.

4. FIRE DAMPER COLLARS SHALL BE SAME GAUGE AS DUCTWORK WITH A MINIMUM OF 16 GAUGE FOR HIGH VELOCITY AS WELL AS RECTANGULAR DUCTWORK UP TO 36" WIDE. FOR DUCTS WIDER THAN 36", COLLARS SHALL BE 14 GAUGE.



DUCT SIZE	MAX. SPACING
2" THICK	8'-0"
1" THICK & 1/2"	5'-0"
1" THICK	4'-0"
OVER 2'-0"	3'-0"

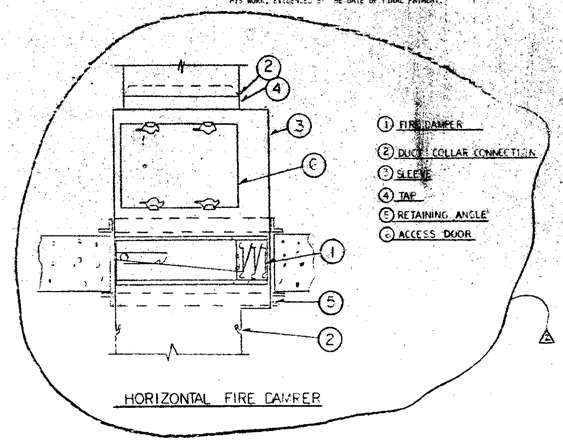
DUCT HANGING DETAIL AND SCHEDULE OF SUPPORTS

GENERAL NOTES

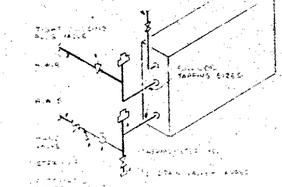
1. THIS WORK SHALL INCLUDE ALL LABOR, MATERIALS AND APPLIANCES NECESSARY FOR FURNISHING, INSTALLING, AND TESTING, COMPLETE AND READY FOR OPERATION, IN A MANNER SATISFACTORY TO THE OWNER. THE HVAC WORK REQUIRED BY THE DRAWINGS AND THESE GENERAL NOTES.
2. THE CONTRACTOR SHALL CHECK AND VERIFY ALL CONDITIONS AT THE SITE BEFORE STARTING WORK.
3. IT SHALL BE UNDERSTOOD THAT THE DRAWINGS SHOW THE GENERAL RUN OF PIPES, DUCTS, ETC., AND THE APPROXIMATE LOCATION OF APPARATUS. DO NOT SCALE THE DRAWINGS TO DETERMINE EXACT POSITIONS AND CLEARANCES.
4. BRING TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY ANY CHANGES IN THE SIZE OR LOCATION OF THE MATERIAL OR EQUIPMENT WHICH MAY BE NECESSARY IN ORDER TO MEET FIELD CONDITIONS OR IN ORDER TO AVOID CONFLICT WITH THE EQUIPMENT OF OTHER SECTIONS. OBTAIN THE ARCHITECT'S APPROVAL BEFORE SUCH DEVIATIONS ARE MADE.
5. THIS CONTRACTOR SHALL DISCONNECT ALL EXISTING PNEUMATIC CONTROLS AND RECONNECT THEM TO EQUIPMENT RELOCATED IN NEW LOCATIONS AS SHOWN ON THESE DRAWINGS.
6. RELATIONS WITH OTHER TRADES
   A. COORDINATE WORK WITH OTHER TRADES. CONFER WITH OTHER CONTRACTORS WHOSE WORK MIGHT AFFECT THIS INSTALLATION AND ARRANGE ALL PARTS OF THIS WORK IN PROPER RELATION TO THE WORK AND EQUIPMENT OF OTHERS, WITH THE BUILDING CONSTRUCTION AND WITH ARCHITECTURAL FINISH SO THAT IT WILL HARMONIZE IN SERVICE AND APPEARANCE.
7. THE CONTRACTOR SHALL BALANCE ALL REGISTERS AND DIFFUSERS TO THE AIR QUANTITIES SHOWN ON THE DRAWINGS AND PROVIDE A COPY OF THE MEASURED AIR QUANTITIES TO THE ARCHITECT.
8. ALL AREAS WHERE THE DUCTWORK IN THE HUNG CEILING WILL NOT BE ACCESSIBLE SHALL BE PRE-BALANCED BEFORE THE CEILING IS INSTALLED.
9. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL DUCTWORK AND CONTROLS.
10. THIS CONTRACTOR SHALL FURNISH, UNDER THIS CONTRACT, A WRITTEN GUARANTEE TO REPLACE OR REPAIR PROMPTLY, AT HIS OWN EXPENSE, ANY WORKMANSHIP IN WHICH DEFECTS DEVELOP WITHIN ONE YEAR FROM DATE OF FINAL ACCEPTANCE OF HIS WORK, EVIDENCED BY THE DATE OF FINAL PAYMENT.

SYMBOL LIST

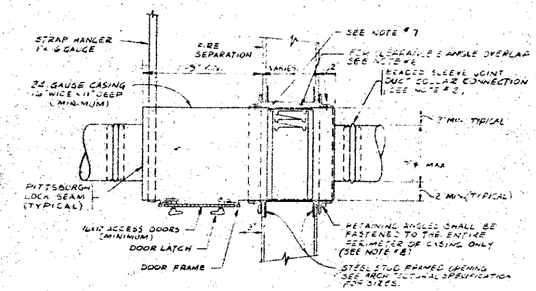
- - - - - -	EXISTING WORK TO BE REMOVED
———	EXISTING WORK TO REMAIN
———	NEW WORK
(E)	EXISTING TO REMAIN
(ER)	EXISTING WORK RELOCATED
(R)	REMOVE EXISTING
FD & AD	FIRE DAMPER & ACCESS DOOR
IRS-IRR	INTERIOR REHEAT SUPPLY & RETURN
CFM	CUBIC FEET PER MINUTE
VD	VOLUME DAMPER
CR	CEILING RETURN REGISTER
RA	RETURN AIR
SA	SUPPLY AIR
WMS	WIRE MESH SCREEN
RCW	HOT WATER REHEAT COIL
AV	AIR VALVE
M	MOTOR
NC	CONNECT NEW WORK INTO EXIST.



HORIZONTAL FIRE DAMPER



HOT WATER REHEAT COIL PIPING



DETAIL OF FINGER OR FLEXIBLE ROUND DUCT WITH TYPE 'B' FIRE DAMPER

date	REVISIONS	no.
2-21-94	SUBMITTED TO FA FOR REVIEW	
9-7-94	REVISED AS PER FA COMMENT	1
10-5-94	SUBMITTED TO FA FOR RE-REVIEW	
10-31-94	REVISED AS PER FA COMMENT	2
11-4-94	SUBMITTED TO FA FOR RE-REVIEW	

CEC
COMMODITIES EXCHANGE CENTER, INC.
FOUR WORLD TRADE CENTER
NEW YORK, NEW YORK 10048

EGRESS UPGRADE
PHASE 1&2 AREAS
C, D, H, B & G

dwg title:
NOTES & DETAILS

MSJ MEYER STRONG & JONES, PC
MECHANICAL & ELECTRICAL ENGINEERS
230 PARK AVE NEW YORK, N.Y. 10169

BONSIGNORE BRIGNATI & MAZZOTTA, P.C. ARCHITECTS
270 SEVENTH AVENUE NEW YORK NEW YORK 10001 (212) 924-8900

project 1936
scale AS NOTED
date 2-21-94

dwg no.
M 9