1. UNDERGROUND MAINS

a. All piping from approximately 5 feet outside of building to be Polyvinyl Chloride (PVC) Class 200 as manufactured by J-M Manufacturing Company "Blue-Brute", or Certainteed "Vinyl Iron".

b. All piping 5 feet to inside of building to be Ductile Iron Class 51.

c. DR 14 PVC rating compatible with same inside diameter as ductile iron mechanical joint pipe and fittings.

d. Gaskets to meet ASTM F477 Standard for joining plastic pipe.

e. All fittings to be Ductile Iron and same nominal size and pressure rating as pipe.

f. Caps and plugs may be interchangeable.

g. All changes of directions in underground pipe to be anchored by concrete thrust blocks or rods as defined by NFPA #24.

h. Thrust Blocks to be a minimum of 3000 psi concrete.

i. Underground mains to be thoroughly flushed in accordance with NFPA #13 & #24.

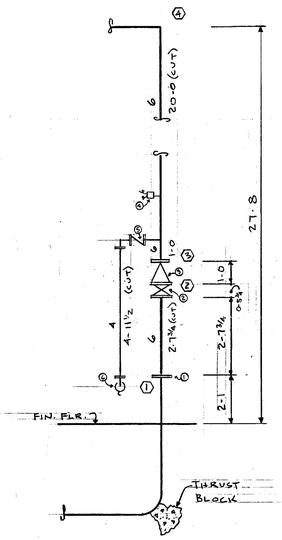
j. Minimum 3'-0" cover to finish grade for all underground piping.

k. Backfill for all buried pipes shall be natural on-site materials.

l. ALL MATERIALS & INSTALLATION TO CONFORM TO THE REQUIREMENTS OF THE TOWN OF ADDISON.

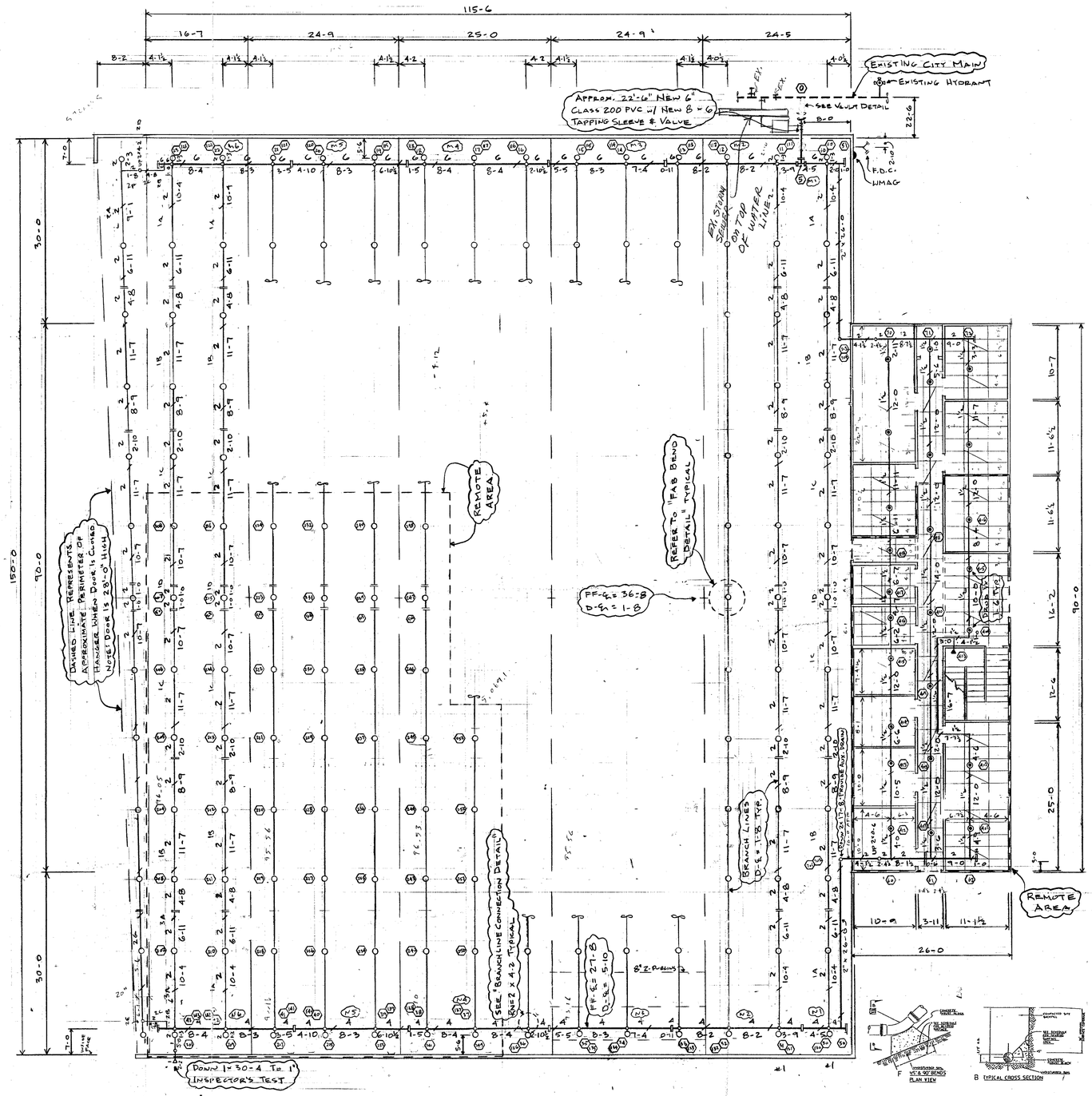
m. PIPE SHALL BE EMBEDDED IN SAND 6" BENEATH PIPE, 6" ON EITHER SIDE, AND 12" ABOVE PIPE.

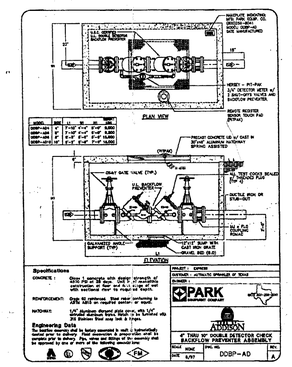
n. TRACER - #12 PLASTIC COATED COPPER WIRE SHALL BE PLACED IN TRENCH OVER FIRE MAIN.



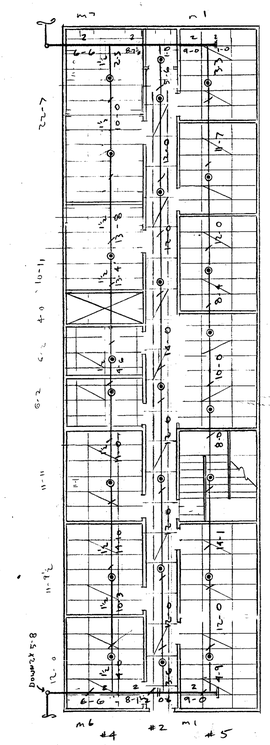
RISER DETAIL
SCALE: 3/8" = 1'-0"

RISER SCHEDULE
① 6" COUPLING
② VIC # 705N BUTTERFLY VALVE W/ TAMPER
③ 6" STAR S30 ALARM CHECK VALVE W/ TRIM
④ 6" POTTER PADDLE-TYPE FLOW SWITCH
⑤ 4" VIC # 717 CHECK VALVE
⑥ 4" DRAIN 90 W/ 1½ BUSHING TO ½" BALL DRIP, OVER 4" x 1-10 I-G GALVANIZED (CUT), TO A 4 x 2½ - 2½ ROUGH BRASS F.D.C.





VAULT DETAIL

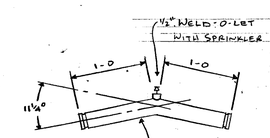


SECOND FLOOR OFFICE PLAN
SCALE: 1/8" = 1'-0"

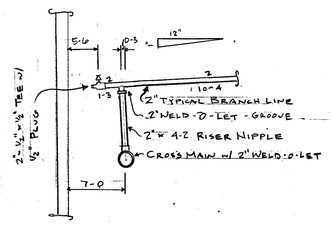
SYSTEM DESIGN CRITERIA

- SYSTEM DESIGN IS BASED ON THE REQUIREMENTS OF NFPA # 409 FOR GROUP II AIRCRAFT HANGER HOUSING UNFUELED AIRCRAFT, & THE TOWN OF ADDISON
- MAXIMUM DISTANCE BETWEEN HEADS IS 12'-0" (130 S.F. MAX) PER NFPA 409 - 4-2.3
- SYSTEM HAS BEEN HYDRAULICALLY CALCULATED TO PROVIDE A DENSITY OF .17 GPM OVER REMOTE 5,000 S.F. AREA PER NFPA # 409 - 4-2.5 & NFPA # 13
- MINIMUM CUSHION OF 10 PSI IS REQUESTED BY THE TOWN OF ADDISON. ACTUAL CUSHION = 12.74 PSI (33.7%)
- SYSTEM DEMAND @ CONNECTION TO CITY MAINS 1,020 GPM @ 38.5 PSI
- SYSTEM DEMAND @ BASE OF RISER = 920.47 GPM @ 45.75 PSI
- OFFICE AREA HAS BEEN HYDRAULICALLY CALCULATED TO PROVIDE A DENSITY OF .10 GPM OVER REMOTE 1,500 S.F. PER NFPA # 13 FOR LIGHT HAZARD
- WATERFLOW INFORMATION OBTAINED FROM THE CITY OF ADDISON BASED ON A 7-30-01 FLOW TEST:

STATIC: 55 PSI
RESIDUAL: 46 PSI
PITOT: 28 W/ ONE 4" FLOWING
FLOW: 2,280 GPM



FAB BEND DETAIL
N.T.S.

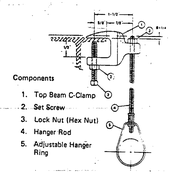


BRANCHLINE CONNECTION DETAIL
N.T.S.

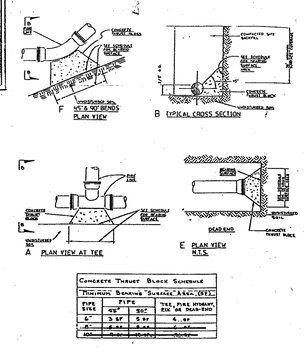
195 / 360° — STAR SG BRASS UPRIGHT
½" ORIFICE x ½" N.P.T. K=5.8

49 / 165° — STAR SG SEMI-RECESSED CHROME PENDENT
½" ORIFICE x ½" N.P.T. K=5.8

1 / 165° — STAR SG CHROME SIDEWALL
½" ORIFICE x ½" NPT K=5.8

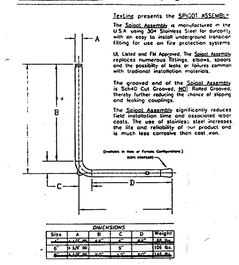


HANGER DETAIL
N.T.S.



CONCRETE THRUST BLOCK SCHEDULE			
MINIMUM BEARING BLOCK AREA (FT²)			
PIPE SIZE	PIPE 45°	PIPE 90°	TEE/PLUG MINIMUM DIA. ON DEAD-END
4"	3.5F	6.5F	4.5F
6"	4.5F	8.4F	6.4F
8"	6.5F	12.1F	8.1F

@ 3000 lb. MINIMUM CONCRETE STRENGTH



GENERAL NOTES

- ALL MATERIALS AND INSTALLATION TO CONFORM TO THE REQUIREMENTS OF NFPA #13 & NFPA # 409
- ALL GROOVED PIPE TO BE DYNA-FLOW
- ALL THREADED PIPE TO BE DYNA-THREAD
- ALL GROOVED FITTINGS AND COUPLINGS TO BE VICTAULIC OR EQUAL
- ALL HANGERS & COMPONENTS TO COMPLY WITH NFPA #13
- ALL PIPE AND HANGERS TO BE BLACK UNLESS NOTED GALVANIZED

FIRE SPRINKLER SYSTEM RESPONSIBLE MANAGING EMPLOYEE
WOODY McCULLAR
LICENSE NO. RMC-0468
REGISTRATION NO. SCR-0383

NO.	DATE	ISSUES & REVISIONS	BY

AUTOMATIC SPRINKLER OF TEXAS, INC.
P.O. BOX 382091
DUNCANVILLE, TEXAS 75138
(972) 298-2772
STATE LICENSE NO. SCR-0383

SURVEYED BY	RO	7-27-01
DRAWN BY	RO	8-03-01
SPRINKLERS THIS SHEET		245
SPRINKLERS TOTAL		245
SCALE: 1/8" = 1'-0"		
CONTRACT NO. 6400		

ADDISON EXPRESS
HANGER ADDITION
4500 CLAIRE CHENNAULT
ADDISON, TEXAS

SHEET NUMBER
FP-1
OF 1 SHEETS

B59
4500 CLAIRE CHENNAULT
FIRE SERVICE