HENRICO COUNTY DPU
FIRE FLOW ESTIMATE FORM
ISO (Insurance Service Office) Method of Calculating NFF (Needed Fire Flow)

ENGINEER:_____DATE:_____

PROJECT NAME:_____CALC. BY:_____

TYPE OF CONSTRUCTION:_____

Class of Construction Coef. = F :   _____

GROUND FLOOR AREA =_____# of Stories_____

Total Floor Area = A_i (effective area):   _____

FIRE AREA CONSIDERED

Construction Factor $C_i = 18(F)(A_i)^{0.5}$
(ROUNDED TO NEAREST 250 GPM) C_i = _____

TYPE OF OCCUPANCY:_____

(Worst Case) Occupancy Factor = O_i :   _____

EXPOSURE (X) AND COMMUNICATION (P):

$X_1 + P_1 =$ _____ $X_4 + P_4 =$ _____

$X_2 + P_2 =$ _____ $X_5 + P_5 =$ _____

$X_3 + P_3 =$ _____ $X_6 + P_6 =$ _____

$$(X+P)_i = 1.0 + \sum_{(i=1)}^{n} (X_i + P_i) =$$

[Max. $(X + P)_i = 1.75$]   _____
(n = NUMBER OF SIDES OF SUBJECT BUILDING)

NEEDED FIRE FLOW

$NFF = (C_i)(O_i)(X+P)_i$ NFF = _____

Automatic Sprinklers (YES___ NO___)   Reduction Factor_____ % x NFF =   -._____

TOTAL: _____

Required Fire Flow - Rounded
(if < 2500 nearest 250)   _____ gpm
(if > 2500 nearest 500)

* Fire Hydrants Required: _____

I CERTIFY THAT THE ABOVE INFORMATION IS TRUE AND CORRECT.

SIGNATURE:_____P.E.

* COMMERCIAL AREA REQUIRES 350 FT. MAXIMUM HOSE LAY.

References: NFF CALCULATION PROCEDURE DESCRIBED IN A.W.W.A. M-31, I.S.O.'S 1980 COMMERCIAL FIRE RATING SCHEDULE AND I.S.O.'S 1980 FIRE SUPRESSION RATING SCHEDULE.