PLUMBING CODE SUMMARY (IPC):

MINIMUM NUMBER OF FIXTURE BASED ON IPC, TABLE 403.1.

FIXTURE TYPE	OCCUPANCY TYPE B	OCCUPANCY TYPE R2	OCCUPANCY TYPE S2
WATER CLOSET (MALE & FEMALE)	1 PER 25 FOR FIRST 50 & 1 PER 50 FOR THE REMAINDER	1 PER 10	1 PER 100
LAVATORIES (MALE & FEMALE)	1 PER 40 FOR THE FIRST 50 AND 1 PER 80 FOR THE REMAINDER	1 PER 10	1 PER 100
SHOWERS	---	1 PER 8	1 PER 1,000
DRINKING FOUNTAIN	1 PER 100	1 PER 100	EMERGENCY SHOWER
OTHER	1 SERVICE SINK	1 SERVICE SINK	1 SERVICE SINK

1. THE MAXIMUM ALLOWABLE OCCUPANCY LOAD IS **214** BASED ON THE IBC TABLE 1004.1.2.
2. THE ACTUAL OCCUPANCY IS: 89

NUMBER OF OCCUPANTS OF EACH SEX (SECTION 403.3):

- THE REQUIRED NUMBER PLUMBING FIXTURES SHALL BE DISTRIBUTED EQUALLY BETWEEN THE SEXES FOR THE OCCUPANCY TYPE **B** (BUSINESS) AND **S2** (STORAGE).
- OCCUPANCY TYPE **S2** IS ACCOUNTED FOR IN THE OCCUPANCY TYPE **R2** AND THEREFORE NOT BE COUNTED TWICE.

ACTUAL OCCUPANCY LOAD:

THE CALCULATIONS ARE BASED ON THE ACTUAL OCCUPANCY BECAUSE THIS FACILITY IS NOT OCCUPIED BY THE GENERAL PUBLIC.

USE GROUP	ACTUAL OCCUPANCY	ALLOWED OCCUPANCY
B	**35**	75
R2	**54**	76
S2	**NOTE 1**	63
TOTAL OCCUPANCY:	**89**	214

NOTE 1: OCCUPANCY LOAD FOR **S2** IS ACCOUNTED FOR IN **R2** NOT COUNTED TWICE.

OCCUPANCY TYPE B (BUSINESS) BASED ON ACTUAL OCCUPANCY OF 35

- WATER CLOSETS: 2
- LAVATORIES: 2
- DRINKING FOUNTAIN: 1
- SERVICE SINK: 1

OCCUPANCY TYPE R2 (RESIDENTIAL) BASED ON ACTUAL OCCUPANCY OF 54
A RATIO OF 50/50% (OR 27 MALES TO 27 FEMALES) SHALL BE USED BECAUSE THIS FACILITY IS BOTH FIRE AND RESCUE.

- WATER CLOSETS: 6
- LAVATORIES: 6
- SHOWERS: 7
- DRINKING FOUNTAIN: SEE NOTE "A" BELOW
- SERVICE SINK: SEE NOTE "A" BELOW

OCCUPANCY TYPE S2 (STORAGE) IS ACCOUNTED FOR IN THE OCCUPANCY TYPE R2

SUMMARY OF TOTAL REQUIRED PLUMBING FIXTURES

Occupancy Type		Occup Number	Water Closets		Lavatories		Bathtubs/ Showers	Drinking Fountain	Other/ Mop Sink
			Male	Female	Male	Female			
B	Business	35	1	1	1	1	0	1	1
R2	Dormitories	54	3	3	3	3	7	"A"	"A"
S2	Storage (Apparatus Bay and support spaces)	0	0	0	0	0	"B"	"A"	"A"
		Required	4	4	4	4	7	1	1
		Provided	6	5	6	6	9	1	1

NOTE "A" THIS FIXTURE TYPE IS SHARED BY ALL OCCUPANCY GROUPS
NOTE "B" INCLUDES ONE EMERGENCY EYE WASH STATION

BUILDING CODE SUMMARY (IBC):

APPLICABLE CODES:

- VUSBC 2003
- IBC 2003
- IFC 2003
- IMC 2003
- IPC 2003
- IEC 2003
- ICC ANSI A117.1 2003

OCCUPANCY CLASSIFICATION:

THE BUILDING IS CONSIDERED A "MIXED USE GROUP OCCUPANCY" AS PER IBC CHAPTER 3

- BUSINESS (B)
- RESIDENTIAL (R2) – DORMITORIES
- MODERATE – HAZARD STORAGE (S2)

TYPE OF CONSTRUCTION:

- NON - SEPARATED MIXED USE GROUP OCCUPANCY
- TYPE: IIIB

OCCUPANCY LOAD: (AS PER IBC TABLE: 1004.1.2)

TYPE OF OCCUPANCY	FLOOR PER OCCUPANT	ACTUAL FLOOR AREA	ALLOWED OCCUPANCY
BUSINESS – B	100 GROSS	7467	75
STORAGE – S2	200 GROSS	12455	63
DORMITORY – R2	50 GROSS	3779	76
		MAXIMUM ALLOWABLE OCCUPANCY:	**214**
		ACTUAL OCCUPANCY:	**89**

BUILDING HEIGHT & AREA:

USE GROUP	AREA LIMITATION IBC CHAPTER 5				ACTUAL AREA PER FLOOR
	BASE AREA LIMIT	SPRINKLER INCREASE NOTE 1	FRONTAGE INCREASE NOTE 2	ALLOW. AREA FLOOR	
B	19,000	57,000	---	57,000	7,467
S2	26,500	79,500	---	79,500	12,455
R2	16,000	48,000	---	48,000	3,597
			ALLOWABLE GROSS	**184,500**	
				ACTUAL GROSS	**23,740**

NOTE 1: PER IBC SECTION 506.1-3, A 300% AREA INCREASE IS ALLOWED FOR SINGLE STORY BUILDING PROVIDED WITH A FULL AUTOMATIC SPRINKLER PROTECTION AS PER SECTION 903.3.1.1.
NOTE 2: FRONTAGE INCREASE NOT TAKEN.

FIRE RESISTANCE RATING OF STRUCTURAL ELEMENTS:

AS PER CHAPTER 6

BUILDING ELEMENTS		FIRE-RESISTANCE RATING (HR)
STRUCTURAL FRAME – COLUMNS, GIRDERS, TRUSSES		0
BEARING WALLS	EXTERIOR	2
	INTERIOR	0
NONBEARING WALLS – INTERIOR		0
FLOOR CONSTRUCTION INCLUDING BEAMS & JOISTS		0
ROOF CONSTRUCTION INCLUDING BEAMS & JOISTS		0

FIRE SEPARATION DISTANCE:

AS PER TABLE 602

SEPARATION DISTANCE FEET	TYPE OF CONSTRUCTION	GROUP S2	GROUP B & R2
> 30	III B	0	0

MEANS OF EGRESS:

REFER TO PLAN FOR TRAVEL DISTANCE AND EXIT CAPACITY

- MAXIMUM TRAVEL DISTANCE:
  - GROUP B IS 300 FEET
  - GROUP R2 IS 250 FEET
  - GROUP S2 IS 250 FEET
- MAXIMUM COMMON PATH OF TRAVEL:
  - GROUP B IS 100 FEET (WITH SPRINKLER SYSTEM)
  - GROUP S2 IS 100 FEET (WITH SPRINKLER SYSTEM)
- MAXIMUM DEAD END CORRIDOR SHALL NOT BE MORE THAN 20 FEET WITH A SPRINKLER SYSTEM
- MINIMUM EGRESS WIDTH SHALL BE:
  - OCCUPANCY 50 OR GREATER = 44-INCHES
  - OCCUPANCY 50 OR LESS = 36-INCHES
  - 24-INCHES IN UTILITY SPACES (MECHANICAL, PLUMBING & ELECTRICAL)

HANDICAPPED ACCESSIBLE:

- YES – ACCESS TO AND WITHIN THE BUILDING

FIRE PROTECTION SYSTEM:

AS PER VUSBC AND NFPA 13 – REFER TO FIRE PROTECTION DRAWINGS

HUGHES GROUP ARCHITECTS
22630 DAVIS DRIVE, SUITE 175
STERLING, VIRGINIA 20164
703.437.6600

CIVIL:
ALPHA ENGINEERING
21351 Ridgetop Circle, Suite 200
Sterling, VA 20166
(703) 450-0800

STRUCTURAL:
EHLERT-BRYAN
1451 Dolley Madison Blvd. Suite 220
McLean, VA 22101
(703) 827-9552

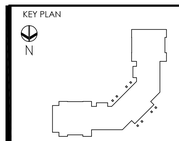
MECHANICAL/ELECTRICAL:
BRINJAC ENGINEERING
4000 Albermarle Street, NW, Suite 305
Washington, DC 20016
(202) 237-2750

PURCELLVILLE FIRE AND RESCUE

500 MAPLE AVE. BUILDING #
PURCELLVILLE, VIRGINIA

CODE SUMMARY

KEY PLAN



REVISIONS:

ISSUES:
9-26-07 BID SET

STAMP AND SEAL:

DATE: 9-26-07
SCALE: N/A
PROJECT NO. 0611
SHEET: G-011

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