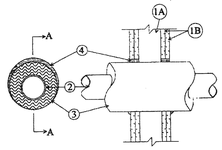
THROUGH PENETRATION FIRESTOP SYSTEMS

NOTE 1

System No. W-L-5014
(Formerly System No. 635)
F Ratings—1 and 2 Hr (See Item 1)
T Rating—1 Hr
L Rating At Ambient—Less Than 1 CFM/sq ft
L Rating At 400 F—Less Than 1 CFM/sq ft

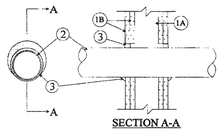


SECTION A-A

1. **Wall Assembly**—The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs—Wall** framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 3-5/8 in. wide and spaced max 24 in. OC.
   B. **Wallboard, Gypsum***—5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 18 in.
   The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. **Through Penetrants**—One metallic pipe or tubing to be installed either concentrically or eccentrically within the Firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
   A. **Steel Pipe**—Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe**—Nom 12 in. diam (or smaller) cast or ductile iron pipe.
   C. **Copper Tubing**—Nom 4 in. (or smaller) type M (or heavier) copper tube.
   D. **Copper Pipe**—Nom 4 in. (or smaller) Regular (or heavier) copper pipe.
3. **Pipe Coverings***—One of the following types of pipe coverings shall be used:
   A. **Pipe and Equipment Covering Materials***—Max 2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space between insulated penetrating item and the edge of the through opening shall be min 0 in. (continuous point contact) to max 1-1/4 in.
   See Pipe and Equipment Covering-Materials*—(BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
   B. **Pipe Covering Materials***—Max 2 in. thick unfaced mineral fiber pipe insulation having a nom density of 3.5 pcf (or heavier) and sized to the outside diam of pipe or tube. Pipe insulation secured with min 8 AWG steel wire spaced max 12 in. OC. The annular space between insulated penetrating item and the edge of the through opening shall be min 0 in. (continuous point contact) to max 1-1/4 in.
   Owens Corning—Paroc 1200, Paroc BWT or Paroc Thermaloc 1200
   C. **Sheathing Material***—Used in conjunction with Item 3B. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or butt tape.
   See Sheathing Materials (BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
4. **Fill, Void or Cavity Material***—**Sealant**—Min 5/8 in. thickness of fill material applied within annulus, flush with both surfaces of wall. At point contact location between insulated through penetrant and gypsum wallboard, a min 3/8 in. bead of fill material shall be applied to the insulated through penetrant/gypsum wallboard interface on both sides of the wall.
   Specified Technologies Inc.—SpecSeal 100, 101, 102 and 105 Sealant

*Bearing the UL Classification Marking

System No. W-L-1049
(Formerly System No. 635)
F Ratings—1 and 2 Hr (See Item 1B)
T Rating—0 Hr
L Rating At Ambient—Less Than 1 CFM/sq ft
L Rating At 400 F—Less Than 1 CFM/sq ft



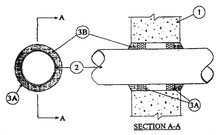
SECTION A-A

1. **Wall Assembly**—The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. **Studs—Wall** framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 3-5/8 in. wide and spaced max 24 in. OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. wider and 4 to 6 in. higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. clearance is present between the penetrating item and the framing on all four sides.
   B. **Wallboard, Gypsum***—5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam of opening is 25-3/4 in. for steel stud walls. Max diam of opening is 54-1/2 in. for wood stud walls.
   The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. **Through Penetrant**—One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe, conduit or tubing and periphery of opening shall be min 0 in. (point contact) to max 1-3/4 in. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. **Steel Pipe**—Nom 24 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe**—Nom 24 in. diam (or smaller) cast or ductile iron pipe.
   C. **Conduit**—Nom 4 in. diam (or smaller) steel electrical metallic tubing, nom 6 in. diam (or smaller) steel conduit or nom 1 in. diam (or smaller) flexible steel conduit.
   D. **Copper Tubing**—Nom 6 in. diam (or smaller) Type L (or heavier) copper tubing.
   E. **Copper Pipe**—Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
3. **Fill, Void or Cavity Material***—**Sealant**—Min 5/8 in. thickness of fill material applied within annulus, flush with both surfaces of wall. At the point contact location between through penetrant and gypsum wallboard, a min 3/8 in. diam bead of fill material shall be applied at the gypsum wallboard/through penetrant interface on both surfaces of wall.
   Specified Technologies Inc.—SpecSeal 100, 101, 102 or 105 Sealant

*Bearing the UL Classification Marking

1 OR 2 HR WALL PENETRATION

System No. W-J-1025
F Rating—2 Hr
T Rating—0 Hr
L Rating At Ambient—Less Than 1 CFM/sq ft
L Rating At 400 F—Less Than 1 CFM/sq ft



SECTION A-A

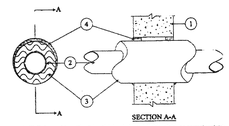
1. **Wall Assembly**—Min 6 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 6 in.
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. **Through Penetrants**—One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space within the firestop system is dependent upon the type of through penetrant, use of the packing material, and type and thickness of fill materials as tabulated in Item 3B. Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. **Steel Pipe**—Nom 4 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe**—Nom 4 in. diam (or smaller) cast or ductile iron pipe.
   C. **Conduit**—Nom 4 in. diam (or smaller) steel electrical metallic tubing or rigid steel conduit.
   D. **Copper Tubing**—Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing.
   E. **Copper Pipe**—Nom 4 in. (or smaller) Regular (or heavier) copper pipe.
3. **Firestop System**—The firestop system shall consist of the following:
   A. **Packing Material**—**Pipe and Equipment Covering Materials***—Nom 1 in. thick by min 2-1/2 in. long hollow cylindrical heavy density (min 3.5 pcf) unfaced glass fiber units wrapped around pipe and secured together by means of No. 24 AWG steel tie wire on both sides of the wall. Packing material shall be recessed from both surfaces of wall as required to accommodate the required thickness of fill material. The use of packing material within the firestop system is dependent upon the type of through penetrant and type and thickness of fill material within the firestop system used as tabulated in Item 3B.
   See Pipe and Equipment Covering—Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specification and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
   B. **FILL, Void or Cavity Material***—**Caulk or Putty**—Fill material applied within the annulus, on both surfaces of wall. Additional fill material to be installed such that a min 1/4 in. crown is formed around the through penetrant. At the point contact location between through penetrant and concrete, a min 3/8 in. diam bead of fill material shall be applied at the concrete/through penetrant interface on both surfaces of wall. The type and thickness of fill material is dependent upon the type of through penetrant, annular within the firestop system and use of packing material within the firestop system as tabulated below:

Type Of Through Penetrant	Nom Annular Space In.	Min Max Annular In.	Use Of Packing Material	Type Of Fill Material	Min Thickness Of Fill Material In.
Steel or Iron Pipe	—	0, 1-1/2	Optional	Sealant	5/8
Steel or Iron Pipe	3/4	—	Required	Putty	3/4
Steel Conduit or Tubing	—	0, 1-1/2	Optional	Sealant	5/8
Steel Conduit or Tubing	3/4	—	Required	Putty	3/4
Copper Pipe or Tubing	3/4	—	Required	Sealant	3/4
Copper Pipe or Tubing	3/4	—	Required	Putty	3/4

   Specified Technologies Inc.—SpecSeal 100, 101, 102 or 105 Sealant and SpecSeal Putty

*Bearing the UL Classification Marking

System No. W-J-5005
F Rating—2 Hr
T Rating—1 Hr
L Rating At Ambient—Less Than 1 CFM/sq ft
L Rating At 400 F—Less Than 1 CFM/sq ft

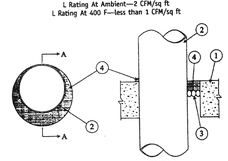


SECTION A-A

1. **Wall Assembly**—Min 6 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 18 in.
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. **Through Penetrants**—One metallic pipe or tubing to be installed either concentrically or eccentrically within the firestop system. Pipe or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes or tubing may be used:
   A. **Steel Pipe**—Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe**—Nom 12 in. diam (or smaller) cast or ductile iron pipe.
   C. **Copper Tubing**—Nom 4 in. (or smaller) Type L (or heavier) copper tube.
   D. **Copper Pipe**—Nom 4 in. (or smaller) Regular (or heavier) copper pipe.
3. **Pipe Coverings***—One of the following types of pipe coverings shall be used:
   A. **Pipe and Equipment Covering Materials***—Max 2 in. thick hollow cylindrical heavy density (min 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt tape supplied with the product. The annular space between insulated penetrating item and the edge of the through opening shall be min 0 in. (continuous point contact) to max 1-1/4 in.
   See Pipe and Equipment Covering—Materials (BRGU) category in the Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
   B. **Pipe Covering Materials***—Max 2 in. thick unfaced mineral fiber pipe insulation having a nom density of 3.5 pcf (or heavier) and sized to the outside diam of pipe or tube. Pipe insulation secured with min 8 AWG steel wire spaced max 12 in. OC. The annular space between insulated penetrating item and the edge of the through opening shall be min 0 in. (continuous point contact) to max 1-1/4 in.
   Owens Corning—Paroc 1200, Paroc BWT or Paroc Thermaloc 1200
   C. **Sheathing Material***—Used in conjunction with Item 3B. Foil-scrim-kraft or all service jacket material shall be wrapped around the outer circumference of the pipe insulation (Item 3B) with the kraft side exposed. Longitudinal joints and transverse joints sealed with metal fasteners or butt tape.
   See Sheathing Materials—(BVDV) category in the Building Materials Directory for names of manufacturers. Any sheathing material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
4. **Fill, Void or Cavity Material***—**Sealant**—Min 5/8 in. thickness of fill material applied within annulus, flush with both surfaces of wall. At the point contact location between insulated through penetrant and gypsum wallboard, a min 3/8 in. bead of fill material shall be applied to the insulated through penetrant/gypsum wallboard interface on both sides of the wall.
   Specified Technologies Inc.—SpecSeal 100, 101, 102 and 105 Sealant

*Bearing the UL Classification Marking

System No. C-AJ-1044
(Formerly System No. 319)
F Ratings—2, 3, and 4 Hr (See Items 2A and 4)
T Rating—0 Hr
L Rating At Ambient—2 CFM/sq ft
L Rating At 400 F—less than 1 CFM/sq ft



SECTION A-A

1. **Floor or Wall Assembly**—Lightweight or normal weight (100-150 pcf) concrete. Except as noted in table under Item 4, min thickness of solid concrete floor or wall assembly is 4-1/2 in. Floor may also be constructed of any min 6 in. thick UL Classified hollow core **Precast Concrete Units***. When floor is constructed of hollow core precast concrete units, concrete material (Item 3) and caulk fill material (Item 4) to be installed symmetrically on both sides of floor, flush with floor surface. Wall assembly may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is to solid lightweight or normal weight concrete. Floor is 32 in. Max diam of opening in floor constructed of hollow-core precast concrete units is 7 in.
   See Concrete Blocks (CAZT) and Precast Concrete Units (CFTV) categories in the Fire Resistance Directory for names of manufacturers.
1A. **Steel Sleeve**—(Optional, not shown)—Max 15 in. ID (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly. Sleeve may extend a max of 2 in. above top of floor or beyond either surface of wall. Max 16 in. ID (or smaller) min 0.028 wall thickness galvanized steel sleeve cast or grouted into floor or wall assembly. Sleeve may extend a max of 1/2 in. beyond either surface of floor or wall.
2. **Through Penetrants**—One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. Max annular space between pipe, conduit or tubing and edge of through opening or sleeve is dependent on the parameters shown in Item 4. Min annular space between pipe or conduit and edge of through opening is zero in. (point contact). Pipe conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. **Steel Pipe**—Nom 30 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. **Iron Pipe**—Nom 30 in. diam (or smaller) cast or ductile iron pipe.
   C. **Conduit**—Nom 6 in. diam (or smaller) rigid steel conduit.
   D. **Conduit**—Nom 4 in. diam (or smaller) steel electrical metallic tubing.
   E. **Copper Tubing**—Nom 6 in. diam (or smaller) Type L (or heavier) copper tube.
   F. **Copper Pipe**—Nom 6 in. diam (or smaller) Regular (or heavier) copper pipe.
3. **Packing Material**—Polyethylene backer rod or nom 1 in. thickness of tightly-packed mineral wool batt or glass fiber insulation firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of caulk fill material (Item 4).
4. **Fill, Void or Cavity Material***—**Caulk**—Applied to fill the annular space flush with top surface of floor. In wall assemblies, required caulk thickness to be installed symmetrically on both sides of wall, flush with wall surface. At point contact location between penetrant and sleeve or between penetrant and concrete, a min 1/4 in. diam bead of caulk shall be applied at top surface of floor and at both surfaces of wall. The hourly F Ratings and the min required caulk thicknesses are dependent upon a number of parameters, as shown in the following table:

Min Floor Or Wall Thickn In.	Nom Pipe Thickn Or Conduit Diam, In	Max Annular Space, In	Min Caulk Thickn, In	F Rating, Hr
2-1/2	1/2-12	1-3/8	1/2	2
2-1/2	1/2-12	3-1/4	1	2
4-1/2	1/2-6	1-3/8	1/4(a)	2
4-1/2	1/2-12	1-1/4	1/2	3
4-1/2	1/2-20	2	1	3
4-1/2	1/2-20	2	1	3
4-1/2	1/2-12	3-1/4	1	3
4-1/2	22-30	2	2	3
5-1/2	1/2-6	1-3/8	1(b)	4

(a)Min 2 in thickness of mineral wool batt insulation required in annular space.
(b)Min 1 in. thickness of mineral wool batt insulation required in annular space on both sides of floor or wall assembly. Min 1 in. thickness of caulk to be installed flush with each surface of floor or wall assembly.
   Minnesota Mining & Manufacturing Co.—CP 25WB+.

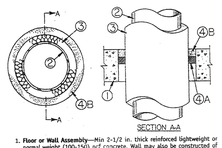
*Bearing the UL Classification Marking

1 OR 2 HR WALL PENETRATION

1 OR 2 HR WALL PENETRATION

2 HR FLOOR PENETRATION

System No. C-AJ-5001
(Formerly System No. 91)
F Ratings—1-1/2, 2 and 3 Hr (See Item 4)
T Ratings—0, 1/2, 3/4 and 1 Hr (See Items 1A and 4)
L Rating At Ambient—2 CFM per sq ft
L Rating At 400 F—less than 1 CFM per sq ft



SECTION A-A

1. **Floor or Wall Assembly**—Min 2-1/2 in. thick reinforced lightweight or normal weight (100-150) pcf concrete. Wall may also be constructed of any UL Classified **Concrete Blocks***. Max diam of opening is 18 in.
   See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
1A. **Steel Sleeve**—(Optional, not shown)—Nom 10 in. (or smaller) Schedule 10 (or heavier) steel sleeve cast or grouted into floor or wall assembly. Sleeve may extend a max of 2 in. above top of floor or beyond either surface of wall. **T Rating** is 0 Hr when sleeve is used.
2. **Through Penetrant**—Nom 4 in. diam (or smaller) Type L (or heavier) copper pipe, nom 12 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) Class 50 (or heavier) ductile iron pressure pipe or nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe centered in the opening and rigidly supported on both sides of the floor or wall assembly.
3. **Pipe Covering***—Nom 1/2 to 2 in. thick hollow cylindrical heavy density (min. 3.5 pcf) glass fiber units jacketed on the outside with an all service jacket. Longitudinal joints sealed with metal fasteners or factory-applied self-sealing lap tape. Transverse joints secured with metal fasteners or with butt strip tape supplied with the product.
   See Pipe and Equipment Covering—Materials*(BRGU) category in Building Materials Directory for names of manufacturers. Any pipe covering material meeting the above specifications and bearing the UL Classification Marking with a Flame Spread Index of 25 or less and a Smoke Developed Index of 50 or less may be used.
4. **Firestop System**—The details of the firestop system shall be as follows:
   A. **Packing Material**—Min 1 in. thickness of firmly packed mineral wool batt insulation used as a permanent form. Packing material to be recessed from top surface of floor or sleeve or from both surfaces of wall as required to accommodate the required thickness of caulk fill material (Item B).
   B. **FILL, Void or Cavity Material***—**Caulk**—Applied to fill the annular space flush with the top surface of the floor or sleeve or flush with both surfaces of wall. When nom pipe covering thickness is 2 in., min thickness of caulk fill material is 2 in. When nom pipe covering thickness is 1-1/2 in. or less, min thickness of caulk fill material is 1 in. The hourly F and T Ratings of the firestop system are dependent upon the thickness of the floor or wall, the size of pipe, the thickness of pipe covering material and the size of the annular space (between the pipe covering material and the edge of the circular through opening), as shown in the following table:

Min Floor Or Wall Thikns In.	Max Pipe Diam In.	Nom Pipe Covering Thikns In.	Annular Space In.	F Rating Hr	T Rating Hr
2-1/2	4	1	1/2 to 2-1/2	2	1
2-1/2	4	2	1/2 to 3-1/2	2	3-1/2
4-1/2	12	1	1/2 to 1-1/2	3	1/2
4-1/2	12	2	1/2 to 2-1/2	3	1
4-1/2	12	1/2	1/2 to 2-1/2	3	0

   Minnesota Mining & Mfg. Co.—CP 25WB+.

*Bearing the UL Classification Marking

2 HR FLOOR PENETRATION

APPLICABLE CODES

2006 INTERNATIONAL BUILDING CODE (IBC)
2006 INTERNATIONAL FIRE CODE (IFC)
UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS)
AMERICAN DISABILITIES ACT (ADA)
NFPA 101 - LIFE SAFTEY CODE
NFPA 70 - NATIONAL ELECTRIC CODE
NFPA 72 - NATIONAL FIRE ALARM CODE
NFPA 13 - FIRE SPRINKLER SYSTEMS
NFPA 14 - STANDPIPE SYSTEMS
NFPA 20 - FIRE PUMP SYSTEMS
NFPA 10 - PORTABLE FIRE EXTINGUISHERS

CODE INFORMATION

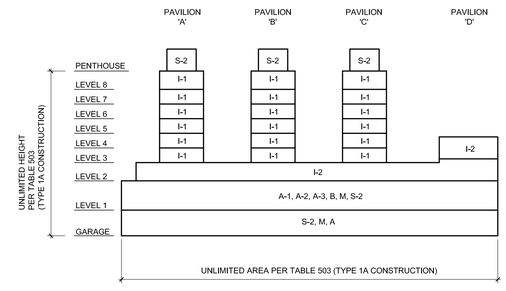
BUILDING TYPE:	HIGH RISE RETIREMENT FACILITY
IBC CONSTRUCTION TYPE:	1B-REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR COLUMNS. THE HEIGHT AND AREA LIMITATIONS OF THE REDUCED CONSTRUCTION TYPE SHALL BE ALLOWED TO BE THE SAME AS FOR THE ORIGINAL CONSTRUCTION TYPE (1A).
IBC USE GROUP:	PARKING GARAGE — A, S-2, M NON-SEPARATED MIXED USES FIRST FLOOR — A-1, A-2, A-3, B, M, S-2 NON-SEPARATED MIXED USES SECOND FLOOR — I-2 THIRD FLOOR — I-1 @ PAVILIONS A, B & C / I-2 @ PAVILION D FOURTH FLOOR — I-1 FIFTH FLOOR — I-1 SIXTH FLOOR — I-1 SEVENTH FLOOR — I-1 EIGHTH FLOOR — I-1 PENTHOUSE — S-2
ALLOWABLE SF PER FLOOR:	UNLIMITED
ALLOWABLE BLDG HEIGHT:	UNLIMITED (LIMITED BY THE GOVERNMENT TO 95')
FULLY SPRINKLED:	YES - NFPA 13 SYSTEM (DRY PIPE SYSTEM IN PARKING GARAGE)
EXTERIOR BEARING WALLS:	NOT APPLICABLE
EXTERIOR NON-LOAD BEARING WALLS:	0 HR NON COMBUSTIBLE
FIRE WALLS:	NOT APPLICABLE
EXIT STAIRS:	2 HR
SHAFTS:	2 HR
EXIT ACCESS CORRIDORS:	0 HR @ A, B, M, & S 1 HR @ I-1 0 HR @ I-2 WITH SMOKE PARTITION CORRIDOR WALLS
SLEEPING UNIT SEPARATION:	1 HR @ I-1, NOT APPLICABLE @ I-2
SMOKE BARRIERS:	1 HR
INTERIOR BEARING WALLS:	NOT APPLICABLE
STRUCTURAL MEMBERS:	3 HR COLUMNS 2 HR FLOOR CONSTRUCTION 1 HR ROOF CONSTRUCTION
ALLOWABLE TRAVEL DISTANCE:	S-2 - 400 FEET B - 300 FEET A, M, I-1 - 250 FEET I-2 - 200 FEET
ALLOWABLE COMMON PATH OF TRAVEL DISTANCE:	A, I, M - 75 FEET B, S - 100 FEET
ALLOWABLE DEAD END CORRIDOR LENGTH:	B - 50 FEET A, I, M, S - 20 FEET
INTERIOR FINISHES	
EXIT ENCLOSURES:	A, B, I, M - CLASS B S - CLASS C
CORRIDORS:	A, I-2 - CLASS B I-1, B, M, S - CLASS C
ROOMS:	I-2 - CLASS B I-1, A, B, M, S - CLASS C

NFPA 10 - PORTABLE FIRE EXTINGUISHERS

Table 6.2.1.1 Fire Extinguisher Size and Placement for Class A Hazards

Criteria	Light (Low) Hazard Occupancy	Ordinary (Moderate) Hazard Occupancy	Extra (High) Hazard Occupancy
Minimum rated single extinguisher	2-A	2-A	4-A
Maximum floor area per unit of A	3000 ft²	1500 ft²	1000 ft²
Maximum floor area for extinguisher	11,250 ft	11,250 ft	11,250 ft
Maximum travel distance to extinguisher	75 ft	75 ft	75 ft

NOTE:
EXTINGUISHERS SPECIFIED ARE 4-A:60-B:C, 10 LB CAPACITY



MIXED USE NON-SEPARATED OCCUPANCIES
PER 508.3.2

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans
JE JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

GENERAL NOTES

NOTE 1: THROUGH-PENETRATION FIRESTOP SYSTEMS LISTED IS NOT INTENDED TO EXCLUDE OTHER ACCEPTABLE MANUFACTURERS. ALTERNATE SYSTEMS MAY BE SUBMITTED FOR ARCHITECTS APPROVAL.

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

KEY PLAN

REVISION NOTES

MARK	DATE	DESCRIPTION
A	09/08/08	ISSUED FOR CONSTRUCTION

GRAPHIC SCALE

NO SCALE

CONTRACTORS

A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	

BUILDING

NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER	
BUILDING NOs.	
FACILITY CODE	

PROJECT

PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008

DRAWING

DRAWING TITLE	CODE DATA SUMMARY
FILE NAME	LS-001-N0095730.dwg
FLOOR NO.	
DRAWN BY	MGF — DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ — SHEET SIZE: 34 X 44
DRAWING NO.	LS 0 01 DISCIPLINE SHEET TYPE SEQUENCE SHEET ---- OF ----

1 LS1.00 **GARAGE LEVEL LIFE SAFETY PLAN** (1"=20'-0")

OPEN PARKING GARAGE

- USE GROUP S-2
- FULLY SPRINKLED
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- TOTAL OCCUPANT LOAD = 1,105 OCCUPANTS
- 11 EXITS PROVIDED WITH EXIT CAPACITY OF 3,946 OCCUPANTS
- 400' EXIT ACCESS TRAVEL DISTANCE
- 195,602 TOTAL SF

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

FIRE PROTECTION LEGEND

- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL

EGRESS LEGEND

- 30 — OCCUPANT LOAD
- MEANS OF EGRESS: 123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH; PATH OF EGRESS
- EGRESS CAPACITY OF EXITS: 32" — CLEAR WIDTH OF EGRESS COMPONENT; 123 — CAPACITY OF EGRESS COMPONENT

PLAN NOTES

NOTE 1: BUILDING & ROOM IS SPRINKLED. PER TABLE 508.2, ENCLOSURE WALLS MUST RESIST THE PASSAGE OF SMOKE.

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA — CURTIS R. JENNINGS, JR. — Lic. No. 3304 — ARCHITECT

KEY PLAN

REVISION NOTES

MARK	DATE	DESCRIPTION
A	09/08/08	ISSUED FOR CONSTRUCTION
A1	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE: 0' 10' 20' 40'

CONTRACTORS

A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	

BUILDING

NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER	
BUILDING NOs.	
FACILITY CODE	

PROJECT

PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008

DRAWING

DRAWING TITLE	GARAGE LEVEL LIFE SAFETY PLAN
FILE NAME	LS-100-N0095730.dwg
FLOOR NO.	K1
DRAWN BY	MGF DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ SHEET SIZE: 34 X 44
DRAWING NO.	LS 1 00 (DISCIPLINE SHEET TYPE SEQUENCE)
SHEET	---- OF 213

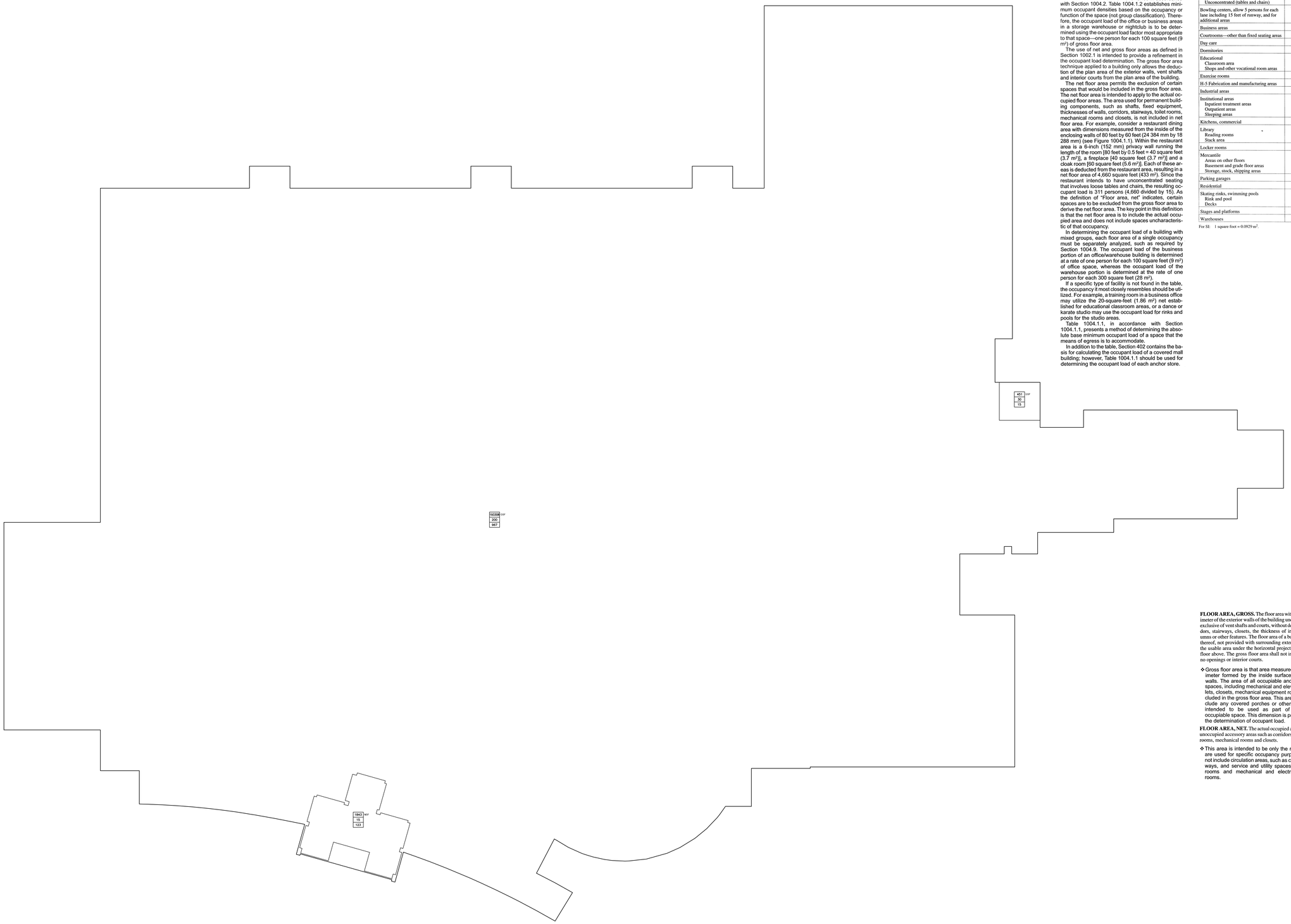


TABLE 1004.1.1. See next column.

❖ The table presents the maximum floor area allowance per occupant based on studies and counts of the number of occupants in typical buildings. The use of this table, then, results in the minimum occupant load for which rooms, spaces and the building must be designed. While an assumed normal occupancy may be viewed as somewhat less than that determined by the use of the table factors, such a normal occupant load is not necessarily an appropriate design criterion. The greatest hazard to the occupants occurs when an unusually large crowd is present. The code does not limit the occupant load density of an area, except as provided for in Section 1004.2, but once the occupant load is established, the means of egress must be designed for at least that capacity. If it is intended that the occupant load will exceed that calculated in accordance with the table, then the occupant load is to be based on the estimated actual number of people, but not to exceed the maximum allowance in accordance with Section 1004.2. Table 1004.1.2 establishes minimum occupant densities based on the occupancy or function of the space (not group classification). Therefore, the occupant load of the office or business areas in a storage warehouse or nightclub is to be determined using the occupant load factor most appropriate to that space—one person for each 100 square feet (9 m²) of gross floor area.

The use of net and gross floor areas as defined in Section 1002.1 is intended to provide a refinement in the occupant load determination. The gross floor area technique applied to a building only allows the deduction of the plan area of the exterior walls, vent shafts and interior courts from the plan area of the building.

The net floor area permits the exclusion of certain spaces that would be included in the gross floor area. The net floor area is intended to apply to the actual occupied floor areas. The area used for permanent building components, such as shafts, fixed equipment, thicknesses of walls, corridors, stairways, toilet rooms, mechanical rooms and closets, is not included in net floor area. For example, consider a restaurant dining area with dimensions measured from the inside of the enclosing walls of 80 feet by 60 feet (24 384 mm by 18 288 mm) (see Figure 1004.1.1). Within the restaurant area is a 6-inch (152 mm) privacy wall running the length of the room [80 feet by 0.5 feet = 40 square feet (3.7 m²)], a fireplace [40 square feet (3.7 m²)] and a cloak room [60 square feet (5.6 m²)]. Each of these areas is deducted from the restaurant area, resulting in a net floor area of 4,660 square feet (433 m²). Since the restaurant intends to have unconcentrated seating that involves loose tables and chairs, the resulting occupant load is 311 persons (4,660 divided by 15). As the definition of "Floor area, net" indicates, certain spaces are to be excluded from the gross floor area to derive the net floor area. The key point in this definition is that the net floor area is to include the actual occupied area and does not include spaces uncharacteristic of that occupancy.

In determining the occupant load of a building with mixed groups, each floor area of a single occupancy must be separately analyzed, such as required by Section 1004.9. The occupant load of the business portion of an office/warehouse building is determined at a rate of one person for each 100 square feet (9 m²) of office space, whereas the occupant load of the warehouse portion is determined at the rate of one person for each 300 square feet (28 m²).

If a specific type of facility is not found in the table, the occupancy it most closely resembles should be utilized. For example, a training room in a business office may utilize the 20-square-feet (1.86 m²) net established for educational classroom areas, or a dance or karate studio may use the occupant load for rinks and pools for the studio areas.

Table 1004.1.1, in accordance with Section 1004.1.1, presents a method of determining the absolute base minimum occupant load of a space that the means of egress is to accommodate.

In addition to the table, Section 402 contains the basis for *calculating* the occupant load of a covered mall building; however, Table 1004.1.1 should be used for determining the occupant load of each anchor store.

TABLE 1004.1.1
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats	
Concentrated (chairs only—not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms—other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 square foot = 0.0929 m².

FLOOR AREA, GROSS. The floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings or interior courts.

❖ Gross floor area is that area measured within the perimeter formed by the inside surface of the exterior walls. The area of all occupiable and nonoccupiable spaces, including mechanical and elevator shafts, toilets, closets, mechanical equipment rooms, etc., is included in the gross floor area. This area could also include any covered porches or other exterior space intended to be used as part of the building's occupiable space. This dimension is primarily used for the determination of occupant load.

FLOOR AREA, NET. The actual occupied area not including unoccupied accessory areas such as corridors, stairways, toilet rooms, mechanical rooms and closets.

❖ This area is intended to be only the room areas that are used for specific occupancy purposes and does not include circulation areas, such as corridors or stairways, and service and utility spaces, such as toilet rooms and mechanical and electrical equipment rooms.

OPEN PARKING GARAGE

TOTAL OCCUPANT LOAD = 1105 OCCUPANTS
11 EXITS PROVIDED WITH EXIT CAPACITY OF 3,946 OCCUPANTS

PLAN NORTH

1 LS1.01 (1"=20'-0") 63

GARAGE LEVEL OCCUPANT LOAD DESIGN

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

OCCUPANT LOAD DESIGN

OCCUPANT LOAD CALCULATIONS

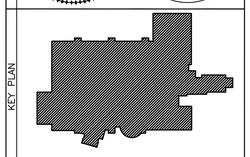
3000 NSF ← FLOOR AREA IN S.F.
NSF = NET SQUARE FEET
GSF = GROSS SQUARE FEET
100 ← ALLOWABLE S.F. PER PERSON PER TABLE 1004.1.1
30 ← OCCUPANT LOAD

PLAN NOTES

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

KEY PLAN



REVISION NOTES

MARK	DATE	DESCRIPTION
0	09/08/08	ISSUED FOR CONSTRUCTION
1	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE 0' 10' 20' 40'

CONTRACTORS

A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	

BUILDING

NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER BUILDING NOs.	
FACILITY CODE	

PROJECT

PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008

DRAWING

DRAWING TITLE	GARAGE LEVEL OCCUPANT LOAD DESIGN
FILE NAME	LS-101-N0095730.dwg
FLOOR NO.	K1
DRAWN BY	MGF DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ SHEET SIZE: 34 X 44
DRAWING NO.	LS 1 01 (DISCIPLINE SHEET TYPE SEQUENCE)
	SHEET ---- OF 213

TABLE 1004.1.1. See next column.

❖ The table presents the maximum floor area allowance per occupant based on studies and counts of the number of occupants in typical buildings. The use of this table, then, results in the minimum occupant load for which rooms, spaces and the building must be designed. While an assumed normal occupancy may be viewed as somewhat less than that determined by the use of the table factors, such a normal occupant load is not necessarily an appropriate design criterion. The greatest hazard to the occupants occurs when an unusually large crowd is present. The code does not limit the occupant load density of an area, except as provided for in Section 1004.2, but once the occupant load is established, the means of egress must be designed for at least that capacity. If it is intended that the occupant load will exceed that calculated in accordance with the table, then the occupant load is to be based on the estimated actual number of people, but not to exceed the maximum allowance in accordance with Section 1004.2. Table 1004.1.2 establishes minimum occupant densities based on the occupancy or function of the space (not group classification). Therefore, the occupant load of the office or business areas in a storage warehouse or nightclub is to be determined using the occupant load factor most appropriate to that space—one person for each 100 square feet (9 m²) of gross floor area.

The use of net and gross floor areas as defined in Section 1002.1 is intended to provide a refinement in the occupant load determination. The gross floor area technique applied to a building only allows the deduction of the plan area of the exterior walls, vent shafts and interior courts from the plan area of the building.

The net floor area permits the exclusion of certain spaces that would be included in the gross floor area. The net floor area is intended to apply to the actual occupied floor areas. The area used for permanent building components, such as shafts, fixed equipment, thicknesses of walls, corridors, stairways, toilet rooms, mechanical rooms and closets, is not included in net floor area. For example, consider a restaurant dining area with dimensions measured from the inside of the enclosing walls of 80 feet by 60 feet (24 384 mm by 18 288 mm) (see Figure 1004.1.1). Within the restaurant area is a 6-inch (152 mm) privacy wall running the length of the room [80 feet by 0.5 feet = 40 square feet (3.7 m²)], a fireplace [40 square feet (3.7 m²)] and a cloak room [60 square feet (5.6 m²)]. Each of these areas is deducted from the restaurant area, resulting in a net floor area of 4,660 square feet (433 m²). Since the restaurant intends to have unconcentrated seating that involves loose tables and chairs, the resulting occupant load is 311 persons (4,660 divided by 15). As the definition of "Floor area, net" indicates, certain spaces are to be excluded from the gross floor area to derive the net floor area. The key point in this definition is that the net floor area is to include the actual occupied area and does not include spaces uncharacteristic of that occupancy.

In determining the occupant load of a building with mixed groups, each floor area of a single occupancy must be separately analyzed, such as required by Section 1004.9. The occupant load of the business portion of an office/warehouse building is determined at a rate of one person for each 100 square feet (9 m²) of office space, whereas the occupant load of the warehouse portion is determined at the rate of one person for each 300 square feet (28 m²).

If a specific type of facility is not found in the table, the occupancy it most closely resembles should be utilized. For example, a training room in a business office may utilize the 20-square-feet (1.86 m²) net established for educational classroom areas, or a dance or karate studio may use the occupant load for rinks and pools for the studio areas.

Table 1004.1.1, in accordance with Section 1004.1.1, presents a method of determining the absolute base minimum occupant load of a space that the means of egress is to accommodate.

In addition to the table, Section 402 contains the basis for calculating the occupant load of a covered mall building; however, Table 1004.1.1 should be used for determining the occupant load of each anchor store.

TABLE 1004.1.1
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal	
Baggage claim	20 gross
Baggage handling	300 gross
Concourse	100 gross
Waiting areas	15 gross
Assembly	
Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats	
Concentrated (chairs only—not fixed)	7 net
Standing space	5 net
Unconcentrated (tables and chairs)	15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms—other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational	
Classroom area	20 net
Shops and other vocational room areas	50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross
Kitchens, commercial	200 gross
Library	
Reading rooms	50 net
Stack area	100 gross
Locker rooms	50 gross
Mercantile	
Areas on other floors	60 gross
Basement and grade floor areas	30 gross
Storage, stock, shipping areas	300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools	
Rink and pool	50 gross
Decks	15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 square foot = 0.0929 m².

FLOOR AREA, GROSS. The floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings or interior courts.

❖ Gross floor area is that area measured within the perimeter formed by the inside surface of the exterior walls. The area of all occupiable and nonoccupiable spaces, including mechanical and elevator shafts, toilets, closets, mechanical equipment rooms, etc., is included in the gross floor area. This area could also include any covered porches or other exterior space intended to be used as part of the building's occupiable space. This dimension is primarily used for the determination of occupant load.

FLOOR AREA, NET. The actual occupied area not including unoccupied accessory areas such as corridors, stairways, toilet rooms, mechanical rooms and closets.

❖ This area is intended to be only the room areas that are used for specific occupancy purposes and does not include circulation areas, such as corridors or stairways, and service and utility spaces, such as toilet rooms and mechanical and electrical equipment rooms.

TOTAL OCCUPANT LOAD = 3,730 OCCUPANTS
16 EXITS PROVIDED WITH EXIT CAPACITY OF 5,759 OCCUPANTS

PLAN NORTH

1 LS1.11 **LEVEL 1 OCCUPANT LOAD DESIGN** (1"=20'-0") 63

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

OCCUPANT LOAD DESIGN

OCCUPANT LOAD CALCULATIONS

3000 NSF — FLOOR AREA IN S.F.; NSF = NET SQUARE FEET, GSF = GROSS SQUARE FEET
100 — ALLOWABLE S.F. PER PERSON PER TABLE 1004.1.1
30 — OCCUPANT LOAD

PLAN NOTES

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

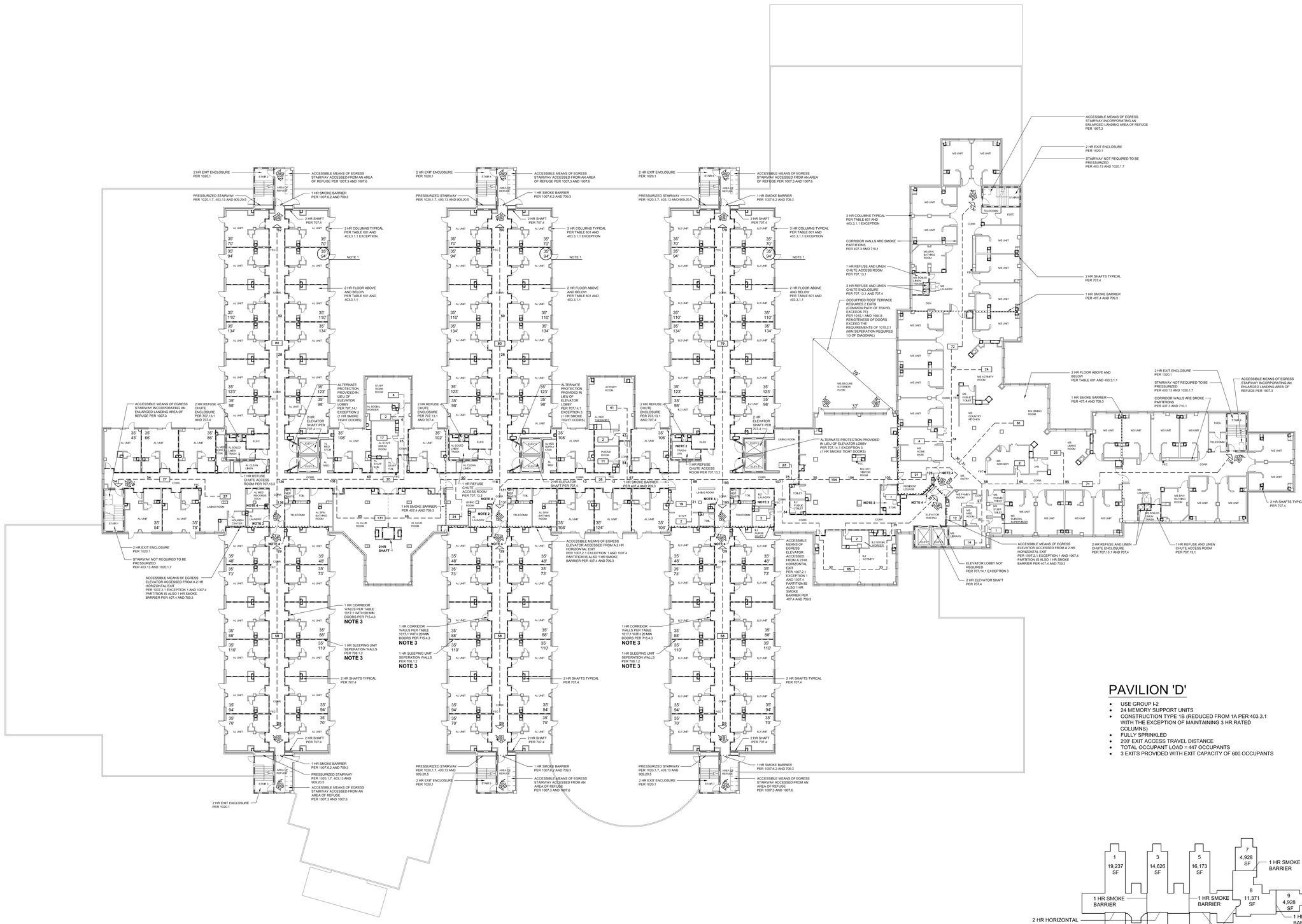
KEY PLAN

REVISION NOTES

MARK	DATE	DESCRIPTION
A	09/08/08	ISSUED FOR CONSTRUCTION
B	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE 0' 10' 20' 40'

CONTRACTORS	A/E CON. NO.	GS-04P-07-EX-C-0099
	A/E TASK NO.	
	CONS. CONTR.	
	CONS. WORK	
	PRIME A/E	
	SUB A/E	
	CONSTR. CON.	
BUILDING	NAME	ARMED FORCES RETIREMENT HOME
	STREET	1800 BEACH DRIVE
	CITY/ST./ZIP	GULFPORT, MS 39507
	BUILDING NO.	
	OTHER	
	BUILDING NOs.	
	FACILITY CODE	
PROJECT	PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
	PROJECT DESCRIPTION	NEW CONSTRUCTION
	PROJECT NO.	31942982
	GSA PM	STEVEN SMITH
	SUBMISSION	ISSUED FOR CONSTRUCTION
	SUB. DATE	09/08/2008
DRAWING	DRAWING TITLE	LEVEL 1 OCCUPANT LOAD DESIGN
	FILE NAME	LS-111-N0095730.dwg
	FLOOR NO.	1
	DRAWN BY	MGF DATE DRAFTED: 09/08/2008
	CHECKED BY	DPJ SHEET SIZE: 34 X 44
	DRAWING NO.	LS 1 11 (DISCIPLINE SHEET TYPE SEQUENCE)
		SHEET ---- OF 213



PAVILION 'D'

- USE GROUP I-2
- 24 MEMORY SUPPORT UNITS
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 200' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 447 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 600 OCCUPANTS

PAVILION 'A'

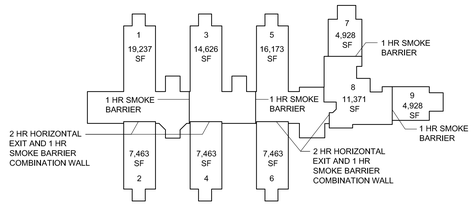
- USE GROUP I-2
- 31 ASSISTED LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 200' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 300 OCCUPANTS
- 4 EXITS PROVIDED WITH EXIT CAPACITY OF 800 OCCUPANTS

PAVILION 'B'

- USE GROUP I-2
- 29 ASSISTED LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 200' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 241 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 600 OCCUPANTS

PAVILION 'C'

- USE GROUP I-2
- 24 INDEPENDENT LIVING 2 UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 200' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 332 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 600 OCCUPANTS



SMOKE COMPARTALIZATION SCHEMATIC PLAN

PLAN NORTH

1 LS1.20 **LEVEL 2 LIFE SAFETY PLAN**
1"=20'-0"
63

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

FIRE PROTECTION LEGEND

- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL
- 1 HR SMOKE BARRIER

EGRESS LEGEND

- 30 — OCCUPANT LOAD
- MEANS OF EGRESS: 123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH; PATH OF EGRESS
- EGRESS CAPACITY OF EXITS: 32" — CLEAR WIDTH OF EGRESS COMPONENT; 123 — CAPACITY OF EGRESS COMPONENT

PLAN NOTES

NOTE 1: TOP FIGURE REPRESENTS TRAVEL DISTANCE INSIDE UNIT. BOTTOM FIGURE REPRESENTS TOTAL TRAVEL DISTANCE TO NEAREST EXIT.

NOTE 2: BUILDING & ROOM IS SPRINKLED. PER TABLE 508.2, ENCLOSURE WALLS MUST RESIST THE PASSAGE OF SMOKE.

NOTE 3: OWNER REQUIRES THAT UNITS IN PAVILION 'A', 'B' AND 'C' BE CONVERTIBLE TO INDEPENDENT LIVING UNITS. THIS REQUIRES ALL CORRIDOR WALLS AND SLEEPING UNIT SEPARATION WALLS TO BE 1 HR RATED.

NOTE 4: HOSE VALVE CABINET. 2 HR PROTECTION REQUIRED PER 905.4.1 FOR SPRINKLER RISER.

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

KEY PLAN

REVISION NOTES

MARK	DATE	DESCRIPTION
1A	09/08/08	ISSUED FOR CONSTRUCTION
1A	12/23/08	ADDED SPRINKLER RISER CHASES
1A	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE 0' 10' 20' 40'

CONTRACTORS

A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	

BUILDING

NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER	
BUILDING NOs.	
FACILITY CODE	

PROJECT

PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008
DRAWING TITLE	LEVEL 2 – LIFE SAFETY PLAN
FILE NAME	LS-120-N0095730.dwg
FLOOR NO.	2

DRAWING

DRAWN BY	MGF DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ SHEET SIZE: 34 X 44
DRAWING NO.	LS 1 20 (DISCIPLINE SHEET TYPE SEQUENCE)
	SHEET ---- OF 213

1004.8 Outdoor areas. Yards, patios, courts and similar outdoor areas accessible to and usable by the building occupants shall be provided with means of egress as required by this chapter. The occupant load of such outdoor areas shall be assigned by the building official in accordance with the anticipated use. Where outdoor areas are to be used by persons in addition to the occupants of the building, and the path of egress travel from the outdoor areas passes through the building, means of egress requirements for the building shall be based on the sum of the occupant loads of the building plus the outdoor areas.

Exceptions:

1. Outdoor areas used exclusively for service of the building need only have one means of egress.
2. Both outdoor areas associated with Group R-3 and individual dwelling units of Group R-2.

❖ This section addresses the means of egress of outdoor areas such as yards, patios and courts. The primary concern is for those outdoor areas used for functions that may include occupants other than the building occupants, or solely by the building occupants where egress from the outdoor area is back through the building to reach the exit discharge. An example is an interior court of an office building where assembly functions are held during normal business hours for persons other than the building occupants. When court occupants must egress from the interior court back through the building, the building's egress system is to be designed for the building occupants, plus the assembly occupants from the interior court. Another example would be an outdoor dining area that exited back through the restaurant.

The occupant load is to be assigned by the building official based on use. It is suggested that the design occupant load be determined in accordance with Section 1004.1.1.

The exceptions describe conditions where the combination of occupant loads is not a concern.

TABLE 1004.1.1. See next column.

❖ The table presents the maximum floor area allowance per occupant based on studies and counts of the number of occupants in typical buildings. The use of this table, then, results in the minimum occupant load for which rooms, spaces and the building must be designed. While an assumed normal occupancy may be viewed as somewhat less than that determined by the use of the table factors, such a normal occupant load is not necessarily an appropriate design criterion. The greatest hazard to the occupants occurs when an unusually large crowd is present. The code does not limit the occupant load density of an area, except as provided for in Section 1004.2, but once the occupant load is established, the means of egress must be designed for at least that capacity. If it is intended that the occupant load will exceed that calculated in accordance with the table, then the occupant load is to be based on the estimated actual number of people, but not to exceed the maximum allowance in accordance with Section 1004.2. Table 1004.1.2 establishes minimum occupant densities based on the occupancy or function of the space (not group classification). Therefore, the occupant load of the office or business areas in a storage warehouse or nightclub is to be determined using the occupant load factor most appropriate to that space—one person for each 100 square feet (9 m²) of gross floor area.

The use of net and gross floor areas as defined in Section 1002.1 is intended to provide a refinement in the occupant load determination. The gross floor area technique applied to a building only allows the deduction of the plan area of the exterior walls, vent shafts and interior courts from the plan area of the building.

The net floor area permits the exclusion of certain spaces that would be included in the gross floor area. The net floor area is intended to apply to the actual occupied floor areas. The area used for permanent building components, such as shafts, fixed equipment, thicknesses of walls, corridors, stairways, toilet rooms, mechanical rooms and closets, is not included in net floor area. For example, consider a restaurant dining area with dimensions measured from the inside of the enclosing walls of 80 feet by 60 feet (24 384 mm by 18 288 mm) (see Figure 1004.1.1). Within the restaurant area is a 6-inch (152 mm) privacy wall running the length of the room [80 feet by 0.5 feet = 40 square feet (3.7 m²)], a fireplace [40 square feet (3.7 m²)] and a cloak room [60 square feet (5.6 m²)]. Each of these areas is deducted from the restaurant area, resulting in a net floor area of 4,660 square feet (433 m²). Since the restaurant intends to have unconcentrated seating that involves loose tables and chairs, the resulting occupant load is 311 persons (4,660 divided by 15). As the definition of "Floor area, net" indicates, certain spaces are to be excluded from the gross floor area to derive the net floor area. The key point in this definition is that the net floor area is to include the actual occupied area and does not include spaces uncharacteristic of that occupancy.

In determining the occupant load of a building with mixed groups, each floor area of a single occupancy must be separately analyzed, such as required by Section 1004.9. The occupant load of the business portion of an office/warehouse building is determined at a rate of one person for each 100 square feet (9 m²) of office space, whereas the occupant load of the warehouse portion is determined at the rate of one person for each 300 square feet (28 m²).

If a specific type of facility is not found in the table, the occupancy it most closely resembles should be utilized. For example, a training room in a business office may utilize the 20-square-feet (1.86 m²) net established for educational classroom areas, or a dance or karate studio may use the occupant load for rinks and pools for the studio areas.

Table 1004.1.1, in accordance with Section 1004.1.1, presents a method of determining the absolute base minimum occupant load of a space that the means of egress is to accommodate.

In addition to the table, Section 402 contains the basis for calculating the occupant load of a covered mall building; however, Table 1004.1.1 should be used for determining the occupant load of each anchor store.

TABLE 1004.1.1
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal Baggage claim Baggage handling Concourse Waiting areas	 20 gross 300 gross 100 gross 15 gross
Assembly Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats Concentrated (chairs only—not fixed) Standing space Unconcentrated (tables and chairs)	 7 net 5 net 15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms—other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational Classroom area Shops and other vocational room areas	 20 net 50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas Inpatient treatment areas Outpatient areas Sleeping areas	 240 gross 100 gross 120 gross
Kitchens, commercial	200 gross
Library Reading rooms Stack area	 50 net 100 gross
Locker rooms	50 gross
Mercantile Areas on other floors Basement and grade floor areas Storage, stock, shipping areas	 60 gross 30 gross 300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools Rink and pool Decks	 50 gross 15 gross
Stages and platforms	15 net
Warehouses	500 gross

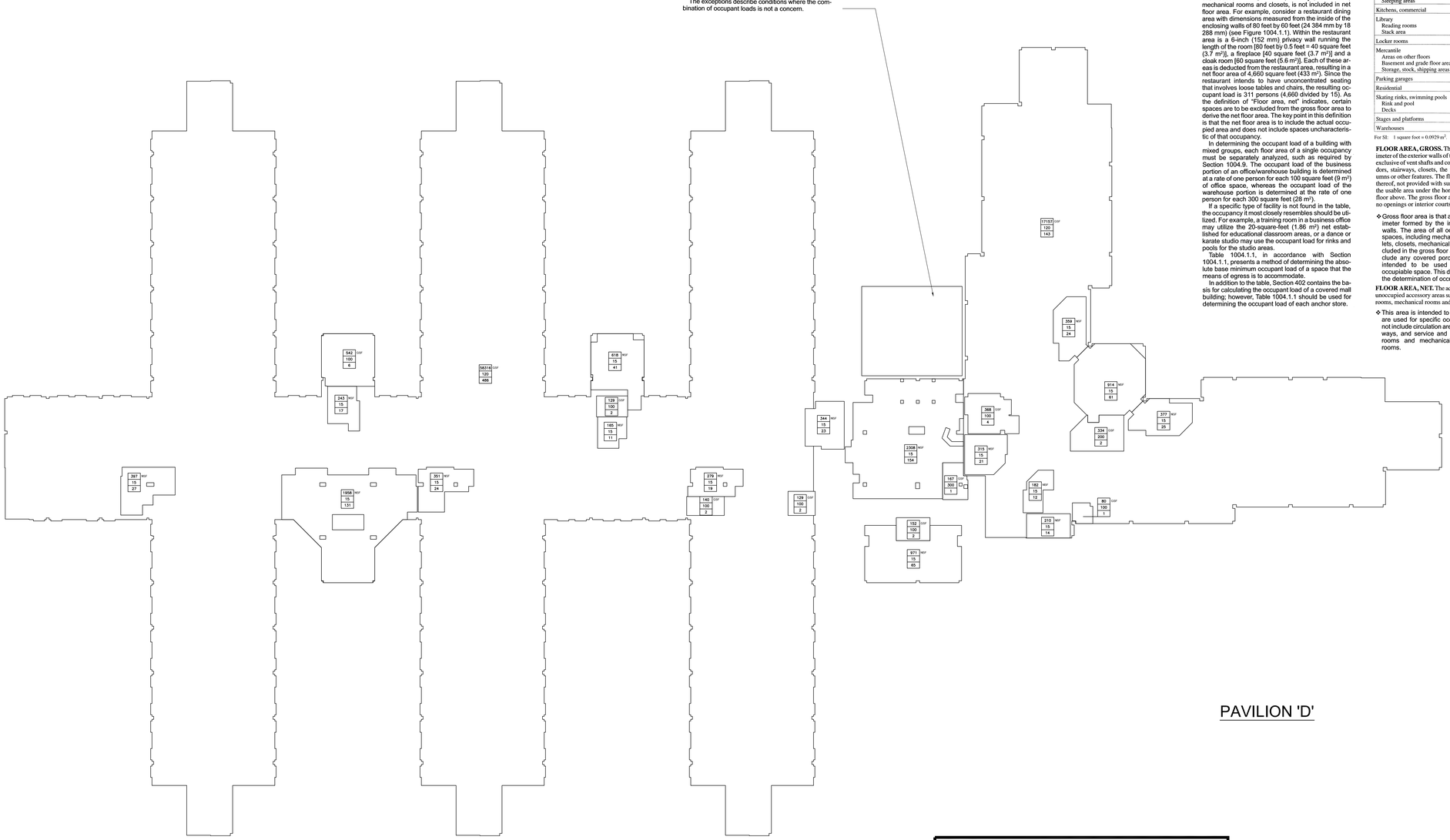
For SI: 1 square foot = 0.0929 m².

FLOOR AREA, GROSS. The floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings or interior courts.

❖ Gross floor area is that area measured within the perimeter formed by the inside surface of the exterior walls. The area of all occupiable and nonoccupiable spaces, including mechanical and elevator shafts, toilets, closets, mechanical equipment rooms, etc., is included in the gross floor area. This area could also include any covered porches or other exterior space intended to be used as part of the building's occupiable space. This dimension is primarily used for the determination of occupant load.

FLOOR AREA, NET. The actual occupied area not including unoccupied accessory areas such as corridors, stairways, toilet rooms, mechanical rooms and closets.

❖ This area is intended to be only the room areas that are used for specific occupancy purposes and does not include circulation areas, such as corridors or stairways, and service and utility spaces, such as toilet rooms and mechanical and electrical equipment rooms.



TOTAL OCCUPANT LOAD = 1,320 OCCUPANTS
13 EXITS PROVIDED WITH EXIT CAPACITY OF 2,600 OCCUPANTS

PLAN NORTH

1 LS1.21 **LEVEL 2 OCCUPANT LOAD DESIGN** (1"=20'-0")

63

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

OCCUPANT LOAD DESIGN

OCCUPANT LOAD CALCULATIONS

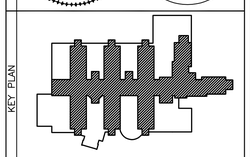
3000 NSF — FLOOR AREA IN S.F.; NSF = NET SQUARE FEET, GSF = GROSS SQUARE FEET
100 — ALLOWABLE S.F. PER PERSON PER TABLE 1004.1.1
30 — OCCUPANT LOAD

PLAN NOTES

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

KEY PLAN

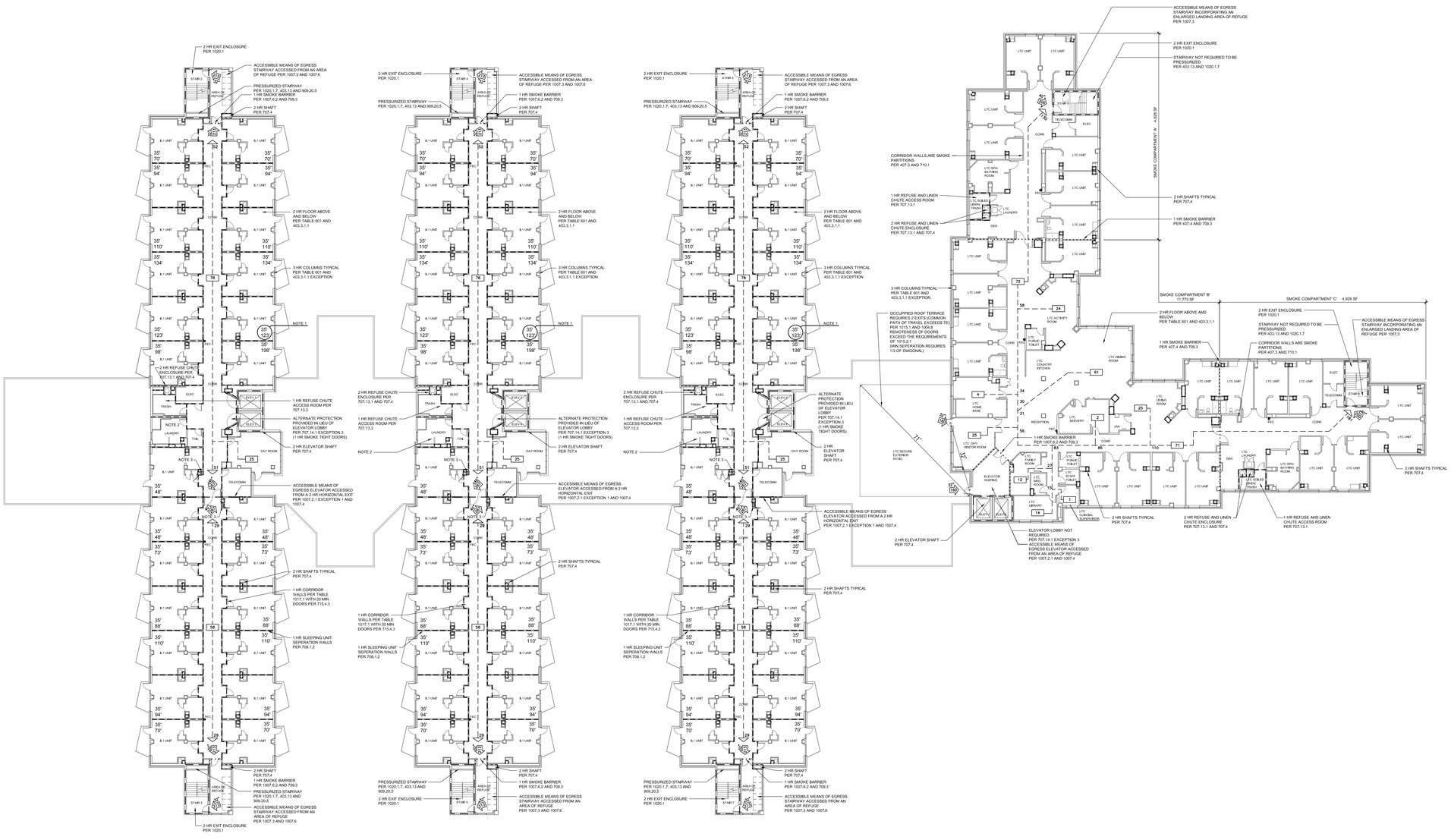


REVISION NOTES

MARK	DATE	DESCRIPTION
A	09/08/08	ISSUED FOR CONSTRUCTION
B	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE: 0' 10' 20' 40'

CONTRACTORS	
A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	
BUILDING	
NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER BUILDING NOs.	
FACILITY CODE	
PROJECT	
PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008
DRAWING	
DRAWING TITLE	LEVEL 2 OCCUPANT LOAD DESIGN
FILE NAME	LS-121-N0095730.dwg
FLOOR NO.	2
DRAWN BY	MGF DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ SHEET SIZE: 34 X 44
DRAWING NO.	LS 1 21 (DISCIPLINE SHEET TYPE SEQUENCE)
	SHEET ---- OF 213



PAVILION 'A'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PAVILION 'B'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PAVILION 'C'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PAVILION 'D'

- USE GROUP I-2
- 24 LONG TERM CARE NURSING UNITS
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 200' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 311 OCCUPANTS
- 2 EXITS PROVIDED WITH EXIT CAPACITY OF 400 OCCUPANTS

1 LS1.30 **LEVEL 3 LIFE SAFETY PLAN** 1"=20'-0"

63

PLAN NORTH

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

FIRE PROTECTION LEGEND

- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL
- 1 HR SMOKE BARRIER

EGRESS LEGEND

- 30 — OCCUPANT LOAD
- MEANS OF EGRESS: 123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH; PATH OF EGRESS
- EGRESS CAPACITY OF EXITS: 32" — CLEAR WIDTH OF EGRESS COMPONENT; 123 — CAPACITY OF EGRESS COMPONENT

PLAN NOTES

NOTE 1: TOP FIGURE REPRESENTS TRAVEL DISTANCE INSIDE UNIT. BOTTOM FIGURE REPRESENTS TOTAL TRAVEL DISTANCE TO NEAREST EXIT.

NOTE 2: BUILDING & ROOM IS SPRINKLED. PER TABLE 508.2, ENCLOSURE WALLS MUST RESIST THE PASSAGE OF SMOKE.

NOTE 3: HOSE VALVE CABINET. 2 HR PROTECTION REQUIRED PER 905.4.1 FOR SPRINKLER RISER.

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

KEY PLAN

REVISION NOTES

MARK	DATE	DESCRIPTION
1	09/08/08	ISSUED FOR CONSTRUCTION
2	12/23/08	ADDED SPRINKLER RISER CHASES
3	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE: 0' 10' 20' 40'

CONTRACTORS

A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	

BUILDING

NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER BUILDING NOs.	
FACILITY CODE	

PROJECT

PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008

DRAWING

DRAWING TITLE	LEVEL 3 – LIFE SAFETY PLAN
FILE NAME	LS-130-N0095730.dwg
FLOOR NO.	3
DRAWN BY	MGF DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ SHEET SIZE: 34 X 44
DRAWING NO.	LS 1 30 (DISCIPLINE SHEET TYPE SEQUENCE)
	SHEET ---- OF 213

1004.8 Outdoor areas. Yards, patios, courts and similar outdoor areas accessible to and usable by the building occupants shall be provided with means of egress as required by this chapter. The occupant load of such outdoor areas shall be assigned by the building official in accordance with the anticipated use. Where outdoor areas are to be used by persons in addition to the occupants of the building, and the path of egress travel from the outdoor areas passes through the building, means of egress requirements for the building shall be based on the sum of the occupant loads of the building plus the outdoor areas.

Exceptions:

1. Outdoor areas used exclusively for service of the building need only have one means of egress.
2. Both outdoor areas associated with Group R-3 and individual dwelling units of Group R-2.

❖ This section addresses the means of egress of outdoor areas such as yards, patios and courts. The primary concern is for those outdoor areas used for functions that may include occupants other than the building occupants, or solely by the building occupants where egress from the outdoor area is back through the building to reach the exit discharge. An example is an interior court of an office building where assembly functions are held during normal business hours for persons other than the building occupants. When court occupants must egress from the interior court back through the building, the building's egress system is to be designed for the building occupants, plus the assembly occupants from the interior court. Another example would be an outdoor dining area that exited back through the restaurant.

The occupant load is to be assigned by the building official based on use. It is suggested that the design occupant load be determined in accordance with Section 1004.1.1.

The exceptions describe conditions where the combination of occupant loads is not a concern.

TABLE 1004.1.1. See next column.

❖ The table presents the maximum floor area allowance per occupant based on studies and counts of the number of occupants in typical buildings. The use of this table, then, results in the minimum occupant load for which rooms, spaces and the building must be designed. While an assumed normal occupancy may be viewed as somewhat less than that determined by the use of the table factors, such a normal occupant load is not necessarily an appropriate design criterion. The greatest hazard to the occupants occurs when an unusually large crowd is present. The code does not limit the occupant load density of an area, except as provided for in Section 1004.2, but once the occupant load is established, the means of egress must be designed for at least that capacity. If it is intended that the occupant load will exceed that calculated in accordance with the table, then the occupant load is to be based on the estimated actual number of people, but not to exceed the maximum allowance in accordance with Section 1004.2. Table 1004.1.2 establishes minimum occupant densities based on the occupancy or function of the space (not group classification). Therefore, the occupant load of the office or business areas in a storage warehouse or nightclub is to be determined using the occupant load factor most appropriate to that space—one person for each 100 square feet (9 m²) of gross floor area.

The use of net and gross floor areas as defined in Section 1002.1 is intended to provide a refinement in the occupant load determination. The gross floor area technique applied to a building only allows the deduction of the plan area of the exterior walls, vent shafts and interior courts from the plan area of the building.

The net floor area permits the exclusion of certain spaces that would be included in the gross floor area. The net floor area is intended to apply to the actual occupied floor areas. The area used for permanent building components, such as shafts, fixed equipment, thicknesses of walls, corridors, stairways, toilet rooms, mechanical rooms and closets, is not included in net floor area. For example, consider a restaurant dining area with dimensions measured from the inside of the enclosing walls of 80 feet by 60 feet (24 384 mm by 18 288 mm) (see Figure 1004.1.1). Within the restaurant area is a 6-inch (152 mm) privacy wall running the length of the room [80 feet by 0.5 feet = 40 square feet (3.7 m²)], a fireplace [40 square feet (3.7 m²)] and a cloak room [60 square feet (5.6 m²)]. Each of these areas is deducted from the restaurant area, resulting in a net floor area of 4,660 square feet (433 m²). Since the restaurant intends to have unconcentrated seating that involves loose tables and chairs, the resulting occupant load is 311 persons (4,660 divided by 15). As the definition of "Floor area, net" indicates, certain spaces are to be excluded from the gross floor area to derive the net floor area. The key point in this definition is that the net floor area is to include the actual occupied area and does not include spaces uncharacteristic of that occupancy.

In determining the occupant load of a building with mixed groups, each floor area of a single occupancy must be separately analyzed, such as required by Section 1004.9. The occupant load of the business portion of an office/warehouse building is determined at a rate of one person for each 100 square feet (9 m²) of office space, whereas the occupant load of the warehouse portion is determined at the rate of one person for each 300 square feet (28 m²).

If a specific type of facility is not found in the table, the occupancy it most closely resembles should be utilized. For example, a training room in a business office may utilize the 20-square-feet (1.86 m²) net established for educational classroom areas, or a dance or karate studio may use the occupant load for rinks and pools for the studio areas.

Table 1004.1.1, in accordance with Section 1004.1.1, presents a method of determining the absolute base minimum occupant load of a space that the means of egress is to accommodate.

In addition to the table, Section 402 contains the basis for calculating the occupant load of a covered mall building; however, Table 1004.1.1 should be used for determining the occupant load of each anchor store.

TABLE 1004.1.1
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal Baggage claim Baggage handling Concourse Waiting areas	 20 gross 300 gross 100 gross 15 gross
Assembly Gaming floors (keno, slots, etc.)	11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats Concentrated (chairs only—not fixed) Standing space Unconcentrated (tables and chairs)	 7 net 5 net 15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms—other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational Classroom area Shops and other vocational room areas	 20 net 50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas Inpatient treatment areas Outpatient areas Sleeping areas	 240 gross 100 gross 120 gross
Kitchens, commercial	200 gross
Library Reading rooms Stack area	 50 net 100 gross
Locker rooms	50 gross
Mercantile Areas on other floors Basement and grade floor areas Storage, stock, shipping areas	 60 gross 30 gross 300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools Rink and pool Decks	 50 gross 15 gross
Stages and platforms	15 net
Warehouses	500 gross

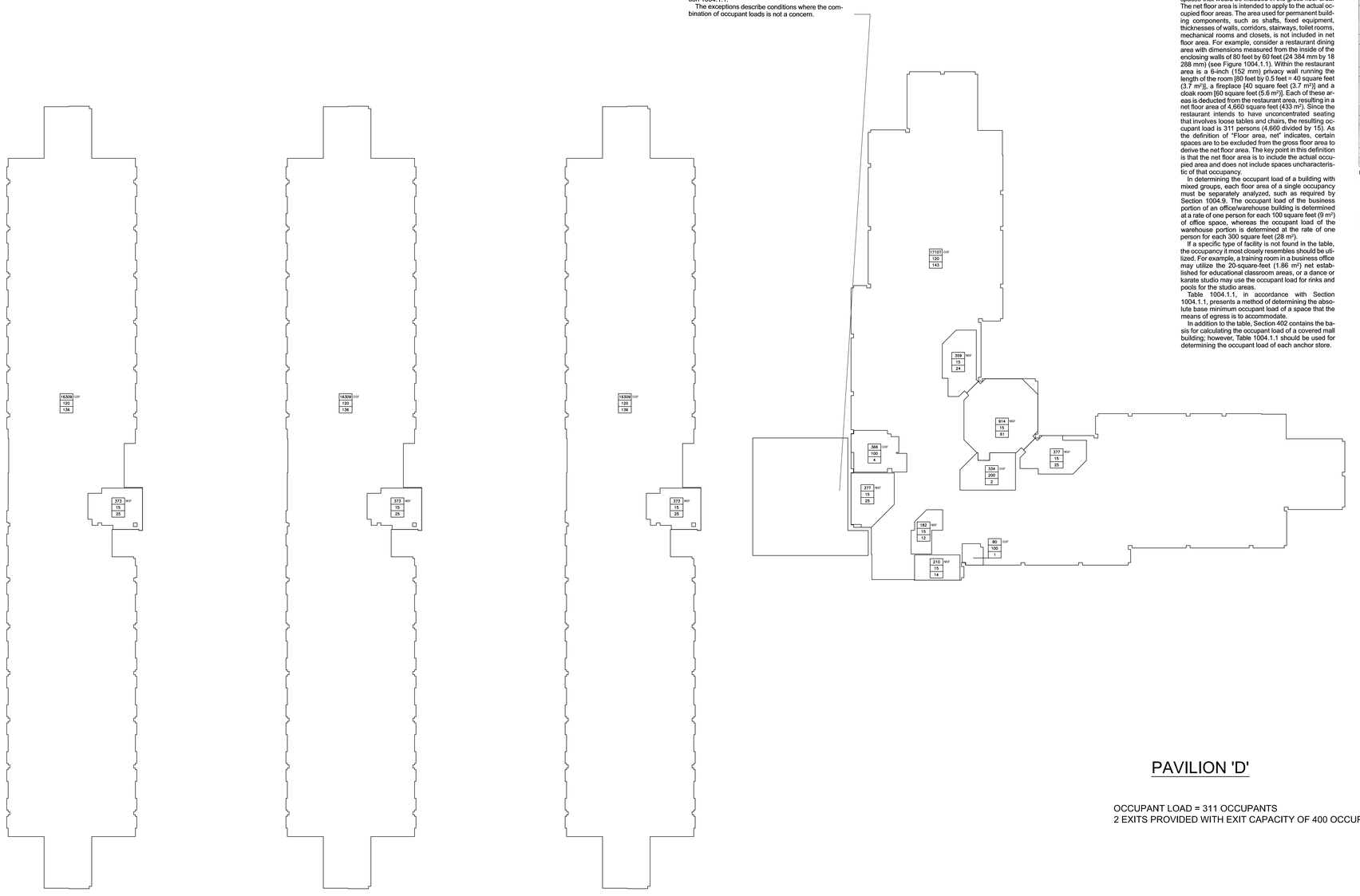
For SI: 1 square foot = 0.0929 m².

FLOOR AREA, GROSS. The floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings or interior courts.

❖ Gross floor area is that area measured within the perimeter formed by the inside surface of the exterior walls. The area of all occupiable and nonoccupiable spaces, including mechanical and elevator shafts, toilets, closets, mechanical equipment rooms, etc., is included in the gross floor area. This area could also include any covered porches or other exterior space intended to be used as part of the building's occupiable space. This dimension is primarily used for the determination of occupant load.

FLOOR AREA, NET. The actual occupied area not including unoccupied accessory areas such as corridors, stairways, toilet rooms, mechanical rooms and closets.

❖ This area is intended to be only the room areas that are used for specific occupancy purposes and does not include circulation areas, such as corridors or stairways, and service and utility spaces, such as toilet rooms and mechanical and electrical equipment rooms.



PAVILION 'A'

TOTAL OCCUPANT LOAD = 161 OCCUPANTS
3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PAVILION 'B'

TOTAL OCCUPANT LOAD = 161 OCCUPANTS
3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PAVILION 'C'

TOTAL OCCUPANT LOAD = 161 OCCUPANTS
3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PAVILION 'D'

OCCUPANT LOAD = 311 OCCUPANTS
2 EXITS PROVIDED WITH EXIT CAPACITY OF 400 OCCUPANTS

1 LS1.31 **LEVEL 3 OCCUPANT LOAD DESIGN** 1"=20'-0" 63

PLAN NORTH

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GSA GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans
JE JACOBS PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION
YATES CONSTRUCTION
SFCS Architecture Engineering Planning Interiors
URS URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

OCCUPANT LOAD DESIGN

OCCUPANT LOAD CALCULATIONS

3000 NSF — FLOOR AREA IN S.F.; NSF = NET SQUARE FEET, GSF = GROSS SQUARE FEET
100 — ALLOWABLE S.F. PER PERSON PER TABLE 1004.1.1
30 — OCCUPANT LOAD

PLAN NOTES

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

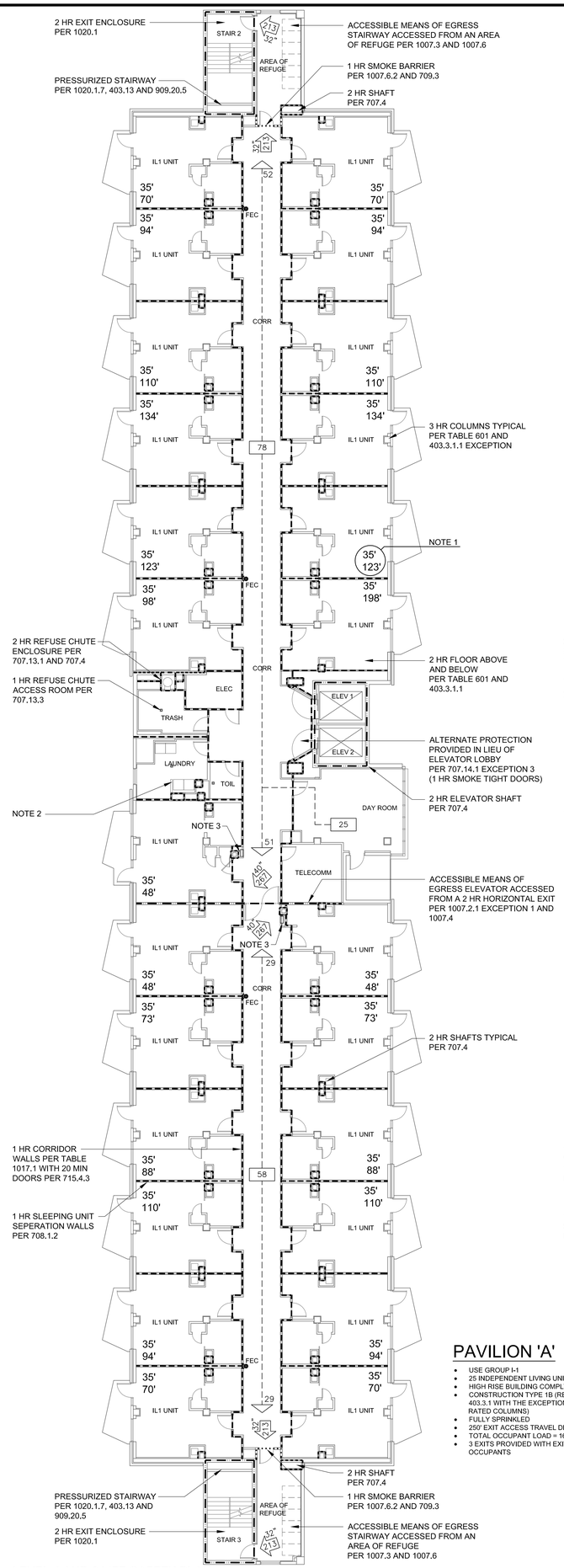
KEY PLAN

REVISION NOTES

MARK	DATE	DESCRIPTION
A	09/08/08	ISSUED FOR CONSTRUCTION
B	01/14/09	ARCHITECTURAL & MEP REVISIONS

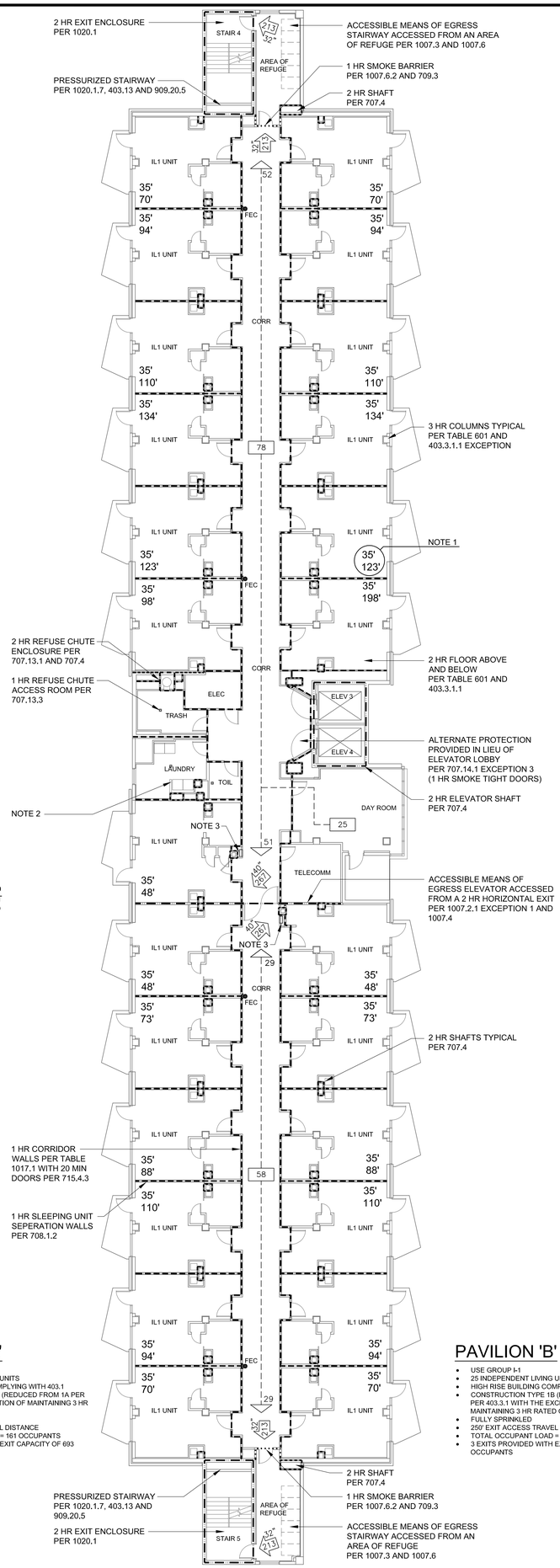
GRAPHIC SCALE 0' 10' 20' 40'

CONTRACTORS	A/E CON. NO.	GS-04P-07-EX-C-0099
	A/E TASK NO.	
	CONS. CONTR.	
	CONS. WORK	
	PRIME A/E	
	SUB A/E	
	CONSTR. CON.	
BUILDING	NAME	ARMED FORCES RETIREMENT HOME
	STREET	1800 BEACH DRIVE
	CITY/ST./ZIP	GULFPORT, MS 39507
	BUILDING NO.	
	OTHER BUILDING NOs.	
	FACILITY CODE	
PROJECT	PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
	PROJECT DESCRIPTION	NEW CONSTRUCTION
	PROJECT NO.	31942982
	GSA PM	STEVEN SMITH
	SUBMISSION	ISSUED FOR CONSTRUCTION
	SUB. DATE	09/08/2008
DRAWING	DRAWING TITLE	LEVEL 3 OCCUPANT LOAD DESIGN
	FILE NAME	LS-131-N0095730.dwg
	FLOOR NO.	3
	DRAWN BY	MGF DATE DRAFTED: 09/08/2008
	CHECKED BY	DPJ SHEET SIZE: 34 X 44
	DRAWING NO.	LS 1 31 (DISCIPLINE SHEET TYPE SEQUENCE)
		SHEET ---- OF 213



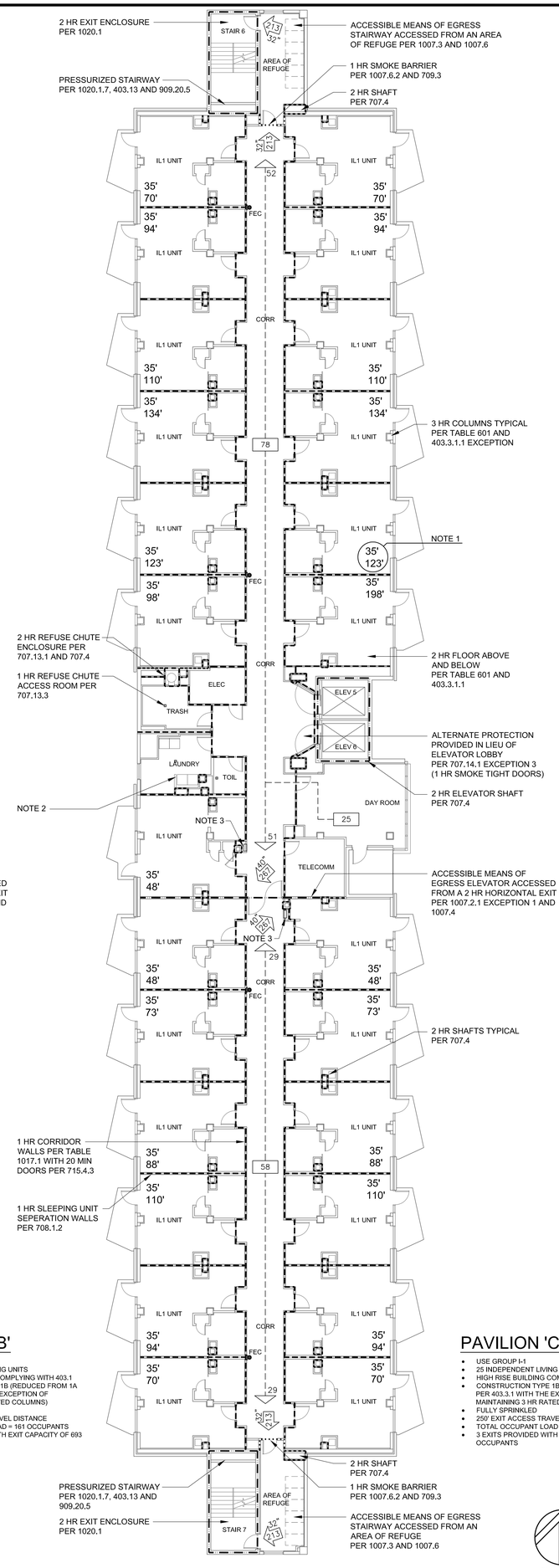
PAVILION 'A'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS



PAVILION 'B'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS



PAVILION 'C'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PLAN NORTH

1 / LS1.40 (3/32"=1'-0") 63

LEVEL 4 AND 6 LIFE SAFETY PLAN

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

FIRE PROTECTION LEGEND

- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL
- 1 HR SMOKE BARRIER

EGRESS LEGEND

- 30 — OCCUPANT LOAD
- MEANS OF EGRESS: 123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH; PATH OF EGRESS
- EGRESS CAPACITY OF EXITS: 32" — CLEAR WIDTH OF EGRESS COMPONENT; 123 — CAPACITY OF EGRESS COMPONENT

PLAN NOTES

NOTE 1: TOP FIGURE REPRESENTS TRAVEL DISTANCE INSIDE UNIT. BOTTOM FIGURE REPRESENTS TOTAL TRAVEL DISTANCE TO NEAREST EXIT.

NOTE 2: BUILDING & ROOM IS SPRINKLED. PER TABLE 508.2, ENCLOSURE WALLS MUST RESIST THE PASSAGE OF SMOKE.

NOTE 3: HOSE VALVE CABINET. 2 HR PROTECTION REQUIRED PER 905.4.1 FOR SPRINKLER RISER.

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

KEY PLAN

REVISION NOTES

MARK	DATE	DESCRIPTION
A	09/08/08	ISSUED FOR CONSTRUCTION
A1	12/23/08	ADDED SPRINKLER RISER CHASES
A2	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE: 0' 5' 10' 20'

CONTRACTORS

A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	

BUILDING

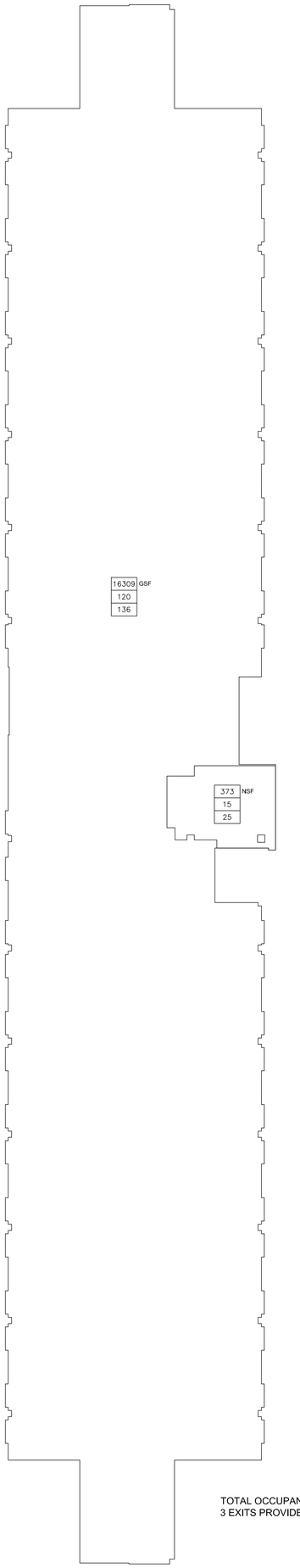
NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER	
BUILDING NOs.	
FACILITY CODE	

PROJECT

PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008

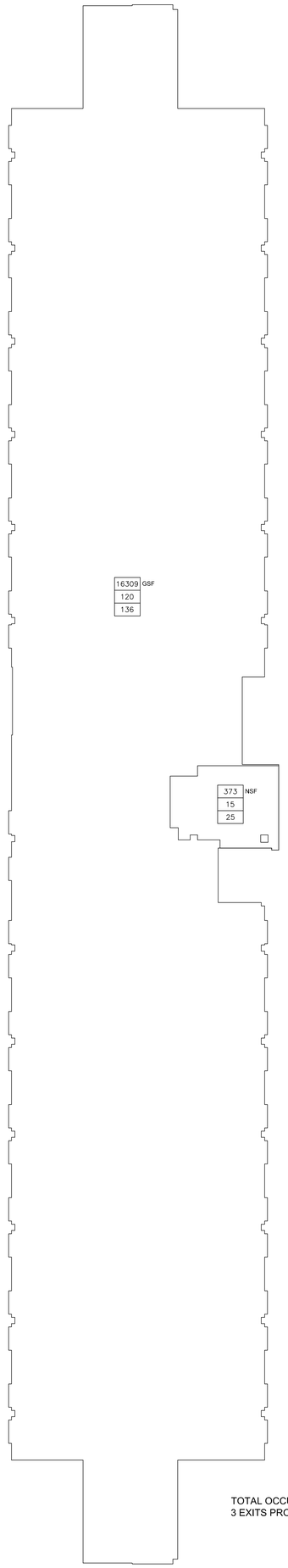
DRAWING

DRAWING TITLE	LEVEL 4 AND 6 LIFE SAFETY PLAN
FILE NAME	LS-140-N0095730.dwg
FLOOR NO.	4 AND 6
DRAWN BY	MGF DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ SHEET SIZE: 34 X 44
DRAWING NO.	LS 1 40 (DISCIPLINE SHEET TYPE SEQUENCE)
	SHEET ---- OF 213



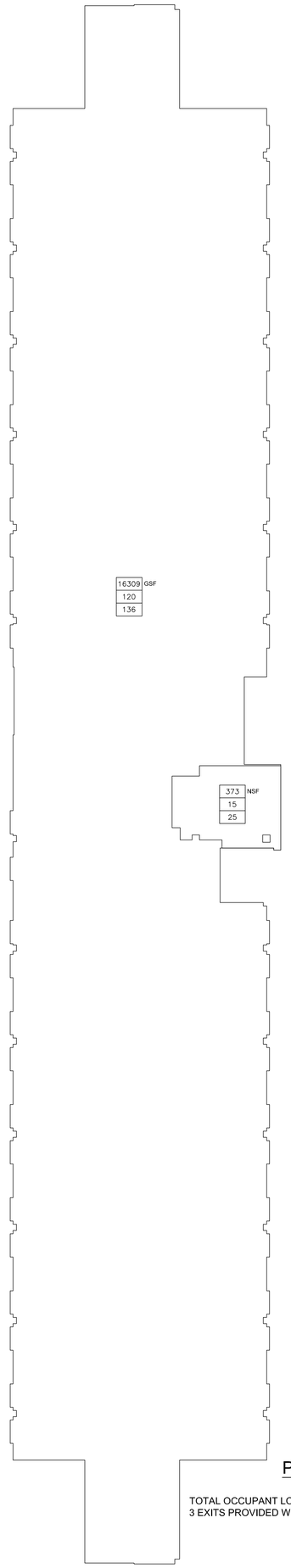
PAVILION 'A'

TOTAL OCCUPANT LOAD = 161 OCCUPANTS
3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS



PAVILION 'B'

TOTAL OCCUPANT LOAD = 161 OCCUPANTS
3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS



PAVILION 'C'

TOTAL OCCUPANT LOAD = 161 OCCUPANTS
3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PLAN NORTH

1 LS1.41 3/32"=1'-0" /63

LEVEL 4 THRU 8 OCCUPANT LOAD DESIGN

TABLE 1004.1.1
MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	FLOOR AREA IN SQ. FT. PER OCCUPANT
Accessory storage areas, mechanical equipment room	300 gross
Agricultural building	300 gross
Aircraft hangars	500 gross
Airport terminal Baggage claim Baggage handling Concourse Waiting areas	 20 gross 300 gross 100 gross 15 gross
Assembly Gaming floors (keno, slots, etc.)	 11 gross
Assembly with fixed seats	See Section 1004.7
Assembly without fixed seats Concentrated (chairs only—not fixed) Standing space Unconcentrated (tables and chairs)	 7 net 5 net 15 net
Bowling centers, allow 5 persons for each lane including 15 feet of runway, and for additional areas	7 net
Business areas	100 gross
Courtrooms—other than fixed seating areas	40 net
Day care	35 net
Dormitories	50 gross
Educational Classroom area Shops and other vocational room areas	 20 net 50 net
Exercise rooms	50 gross
H-5 Fabrication and manufacturing areas	200 gross
Industrial areas	100 gross
Institutional areas Inpatient treatment areas Outpatient areas Sleeping areas	 240 gross 100 gross 120 gross
Kitchens, commercial	200 gross
Library Reading rooms Stack area	 50 net 100 gross
Locker rooms	50 gross
Mercantile Areas on other floors Basement and grade floor areas Storage, stock, shipping areas	 60 gross 30 gross 300 gross
Parking garages	200 gross
Residential	200 gross
Skating rinks, swimming pools Rink and pool Decks	 50 gross 15 gross
Stages and platforms	15 net
Warehouses	500 gross

For SI: 1 square foot = 0.0929 m².

TABLE 1004.1.1. See next column.

❖ The table presents the maximum floor area allowance per occupant based on studies and counts of the number of occupants in typical buildings. The use of this table, then, results in the minimum occupant load for which rooms, spaces and the building must be designed. While an assumed normal occupancy may be viewed as somewhat less than that determined by the use of the table factors, such a normal occupant load is not necessarily an appropriate design criterion. The greatest hazard to the occupants occurs when an unusually large crowd is present. The code does not limit the occupant load density of an area, except as provided for in Section 1004.2, but once the occupant load is established, the means of egress must be designed for at least that capacity. If it is intended that the occupant load will exceed that calculated in accordance with the table, then the occupant load is to be based on the estimated actual number of people, but not to exceed the maximum allowance in accordance with Section 1004.2. Table 1004.1.2 establishes minimum occupant densities based on the occupancy or function of the space (not group classification). Therefore, the occupant load of the office or business areas in a storage warehouse or nightclub is to be determined using the occupant load factor most appropriate to that space—one person for each 100 square feet (9 m²) of gross floor area.

The use of net and gross floor areas as defined in Section 1002.1 is intended to provide a refinement in the occupant load determination. The gross floor area technique applied to a building only allows the deduction of the plan area of the exterior walls, vent shafts and interior courts from the plan area of the building.

The net floor area permits the exclusion of certain spaces that would be included in the gross floor area. The net floor area is intended to apply to the actual occupied floor areas. The area used for permanent building components, such as shafts, fixed equipment, thicknesses of walls, corridors, stairways, toilet rooms, mechanical rooms and closets, is not included in net floor area. For example, consider a restaurant dining area with dimensions measured from the inside of the enclosing walls of 80 feet by 60 feet (24 384 mm by 18 288 mm) (see Figure 1004.1.1). Within the restaurant area is a 6-inch (152 mm) privacy wall running the length of the room [80 feet by 0.5 feet = 40 square feet (3.7 m²)], a fireplace [40 square feet (3.7 m²)] and a cloak room [60 square feet (5.6 m²)]. Each of these areas is deducted from the restaurant area, resulting in a net floor area of 4,660 square feet (433 m²). Since the restaurant intends to have unconcentrated seating that involves loose tables and chairs, the resulting occupant load is 311 persons (4,660 divided by 15). As the definition of "Floor area, net" indicates, certain spaces are to be excluded from the gross floor area to derive the net floor area. The key point in this definition is that the net floor area is to include the actual occupied area and does not include spaces uncharacteristic of that occupancy.

In determining the occupant load of a building with mixed groups, each floor area of a single occupancy must be separately analyzed, such as required by Section 1004.9. The occupant load of the business portion of an office/warehouse building is determined at a rate of one person for each 100 square feet (9 m²) of office space, whereas the occupant load of the warehouse portion is determined at the rate of one person for each 300 square feet (28 m²).

If a specific type of facility is not found in the table, the occupancy it most closely resembles should be utilized. For example, a training room in a business office may utilize the 20-square-feet (1.86 m²) net established for educational classroom areas, or a dance or karate studio may use the occupant load for rinks and pools for the studio areas.

Table 1004.1.1, in accordance with Section 1004.1.1, presents a method of determining the absolute base minimum occupant load of a space that the means of egress is to accommodate.

In addition to the table, Section 402 contains the basis for calculating the occupant load of a covered mall building; however, Table 1004.1.1 should be used for determining the occupant load of each anchor store.

FLOOR AREA, GROSS. The floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings or interior courts.

❖ Gross floor area is that area measured within the perimeter formed by the inside surface of the exterior walls. The area of all occupiable and nonoccupiable spaces, including mechanical and elevator shafts, toilets, closets, mechanical equipment rooms, etc., is included in the gross floor area. This area could also include any covered porches or other exterior space intended to be used as part of the building's occupiable space. This dimension is primarily used for the determination of occupant load.

FLOOR AREA, NET. The actual occupied area not including unoccupied accessory areas such as corridors, stairways, toilet rooms, mechanical rooms and closets.

❖ This area is intended to be only the room areas that are used for specific occupancy purposes and does not include circulation areas, such as corridors or stairways, and service and utility spaces, such as toilet rooms and mechanical and electrical equipment rooms.

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS
URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

OCCUPANT LOAD DESIGN

OCCUPANT LOAD CALCULATIONS

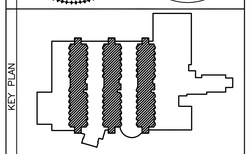
3000 NSF ← FLOOR AREA IN S.F.; NSF = NET SQUARE FEET, GSF = GROSS SQUARE FEET
100 ← ALLOWABLE S.F. PER PERSON PER TABLE 1004.1.1
30 ← OCCUPANT LOAD

PLAN NOTES

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

KEY PLAN



REVISION NOTES

MARK	DATE	DESCRIPTION
A	09/08/08	ISSUED FOR CONSTRUCTION
A1	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE: 0' 5' 10' 20'

CONTRACTORS

A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	

BUILDING

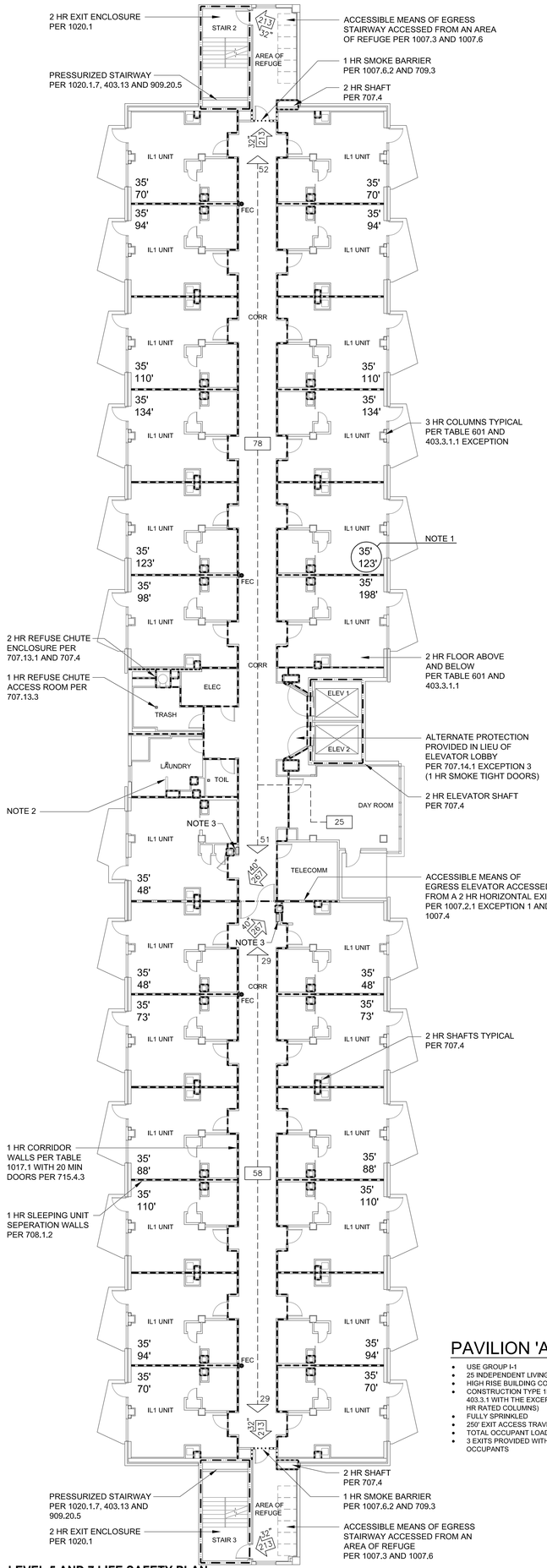
NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER BUILDING NOs.	
FACILITY CODE	

PROJECT

PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008

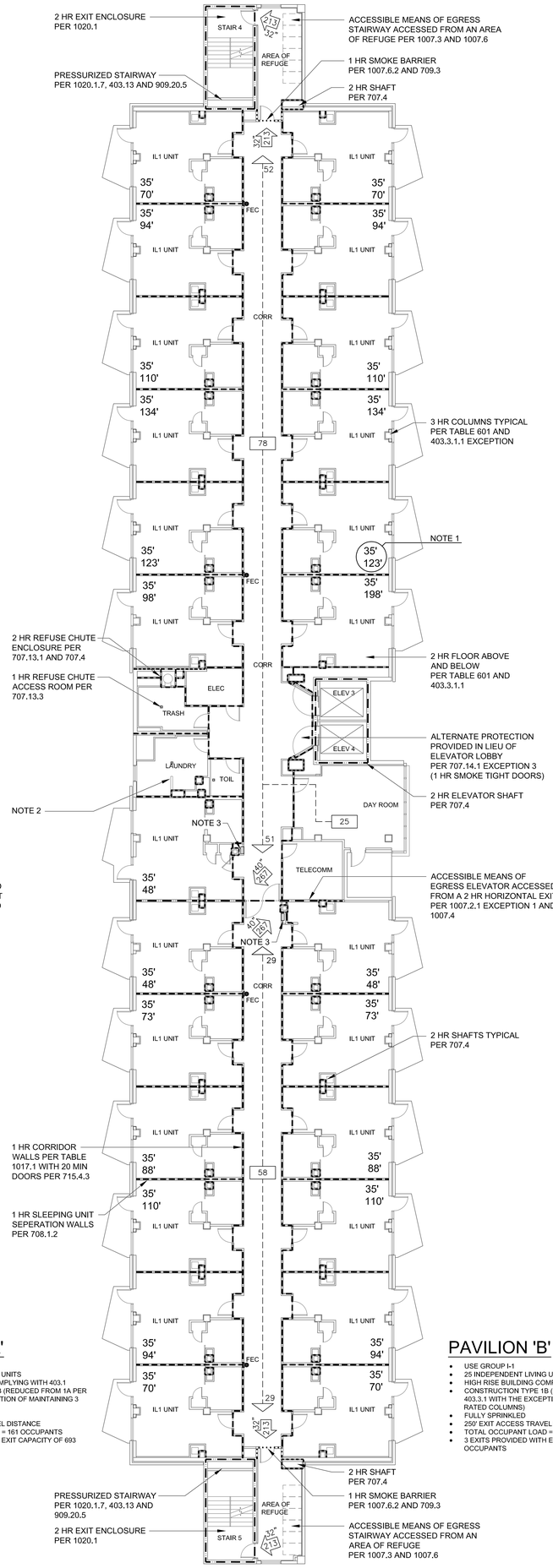
DRAWING

DRAWING TITLE	LEVEL 4 – 8 OCCUPANT LOAD DESIGN
FILE NAME	LS-141-N0095730.dwg
FLOOR NO.	4 THRU 8
DRAWN BY	MGF DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ SHEET SIZE: 34 X 44
DRAWING NO.	LS 1 41 (DISCIPLINE SHEET TYPE SEQUENCE)
	SHEET ---- OF 213



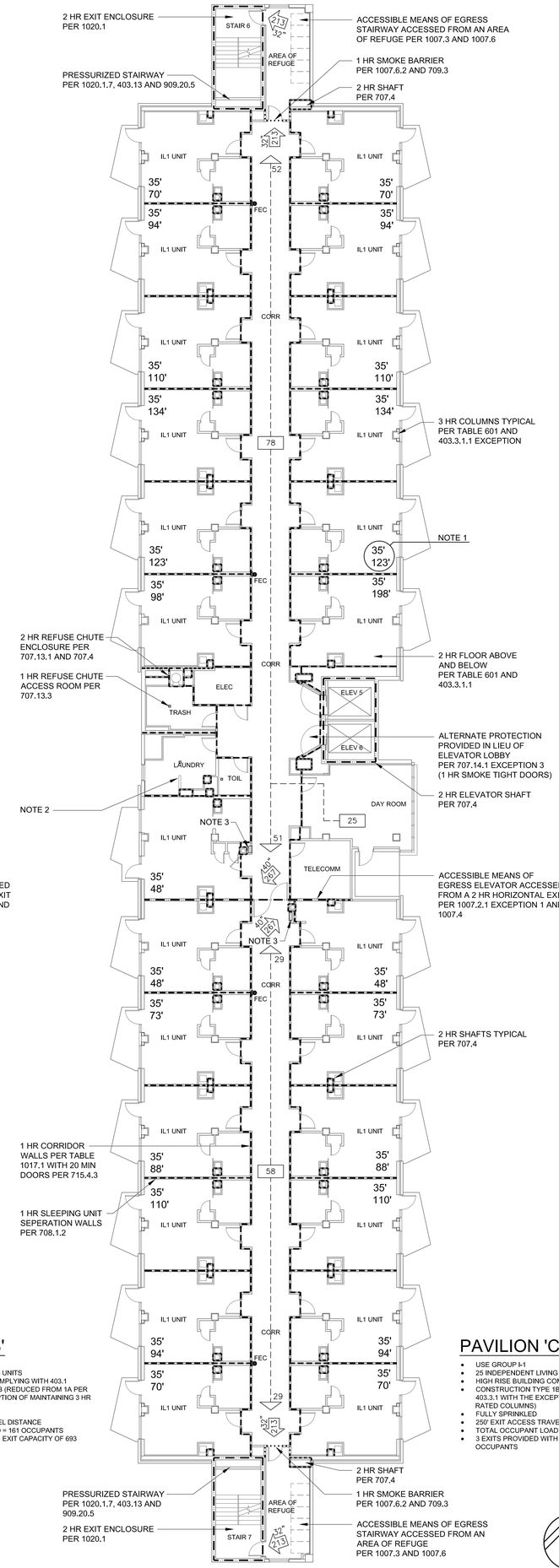
PAVILION 'A'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS



PAVILION 'B'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS



PAVILION 'C'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PLAN NORTH

1 LS1.50 (3/32"=1'-0") 63

LEVEL 5 AND 7 LIFE SAFETY PLAN

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

FIRE PROTECTION LEGEND

- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL
- 1 HR SMOKE BARRIER

EGRESS LEGEND

- 30 — OCCUPANT LOAD
- MEANS OF EGRESS: 123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH; PATH OF EGRESS
- EGRESS CAPACITY OF EXITS: 32 — CLEAR WIDTH OF EGRESS COMPONENT; 123 — CAPACITY OF EGRESS COMPONENT

PLAN NOTES

NOTE 1: TOP FIGURE REPRESENTS TRAVEL DISTANCE INSIDE UNIT. BOTTOM FIGURE REPRESENTS TOTAL TRAVEL DISTANCE TO NEAREST EXIT.

NOTE 2: BUILDING & ROOM IS SPRINKLED. PER TABLE 508.2, ENCLOSURE WALLS MUST RESIST THE PASSAGE OF SMOKE.

NOTE 3: HOSE VALVE CABINET. 2 HR PROTECTION REQUIRED PER 905.4.1 FOR SPRINKLER RISER.

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 3304
ARCHITECT

KEY PLAN

REVISION NOTES

MARK	DATE	DESCRIPTION
A	09/08/08	ISSUED FOR CONSTRUCTION
A1	12/23/08	ADDED SPRINKLER RISER CHASES
A2	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE: 0' 5' 10' 20'

CONTRACTORS

A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	

BUILDING

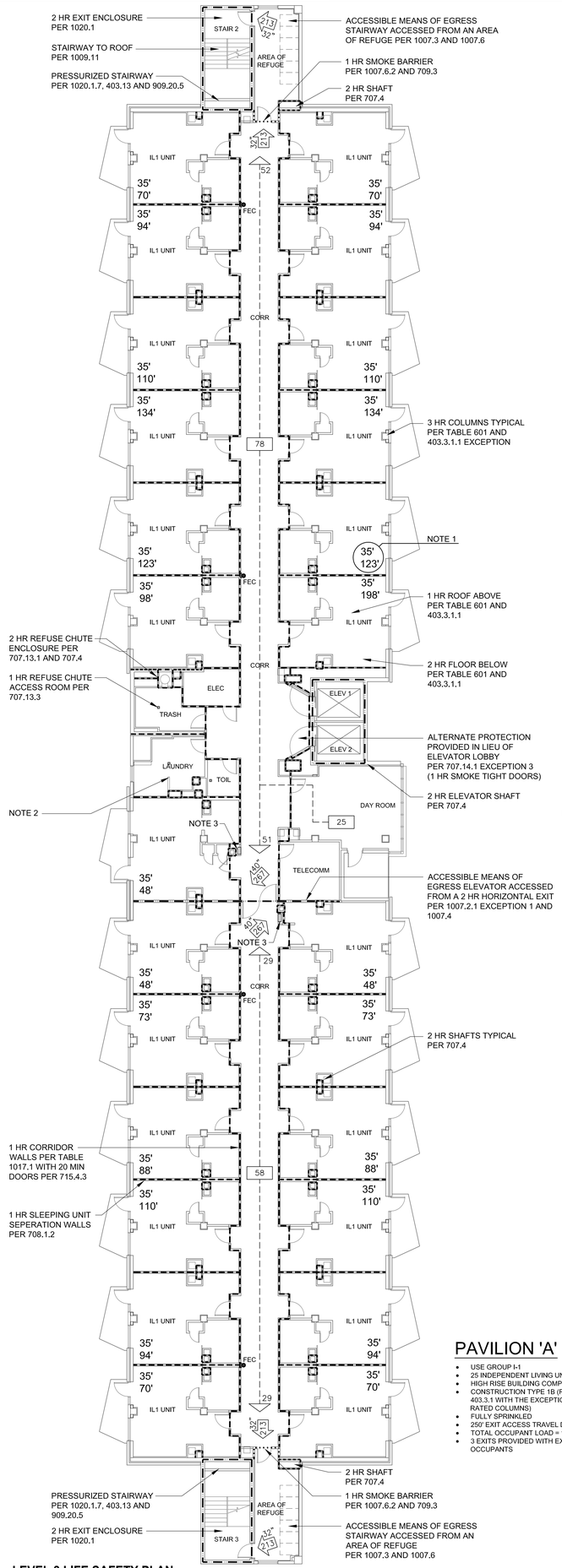
NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER BUILDING NOs.	
FACILITY CODE	

PROJECT

PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008

DRAWING

DRAWING TITLE	LEVEL 5 AND 7 LIFE SAFETY PLAN
FILE NAME	LS-150-N0095730.dwg
FLOOR NO.	5 AND 7
DRAWN BY	MGF DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ SHEET SIZE: 34 X 44
DRAWING NO.	LS 1 50 (DISCIPLINE SHEET TYPE SEQUENCE)
	SHEET ---- OF 213

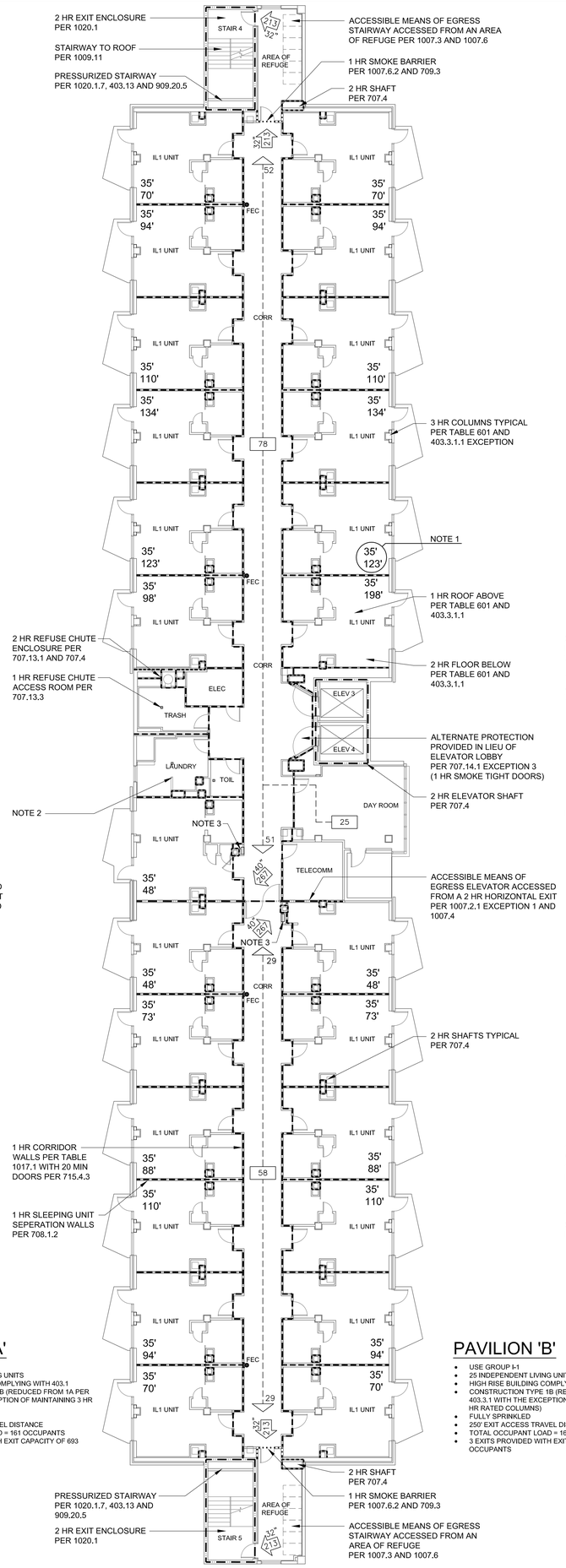


PAVILION 'A'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

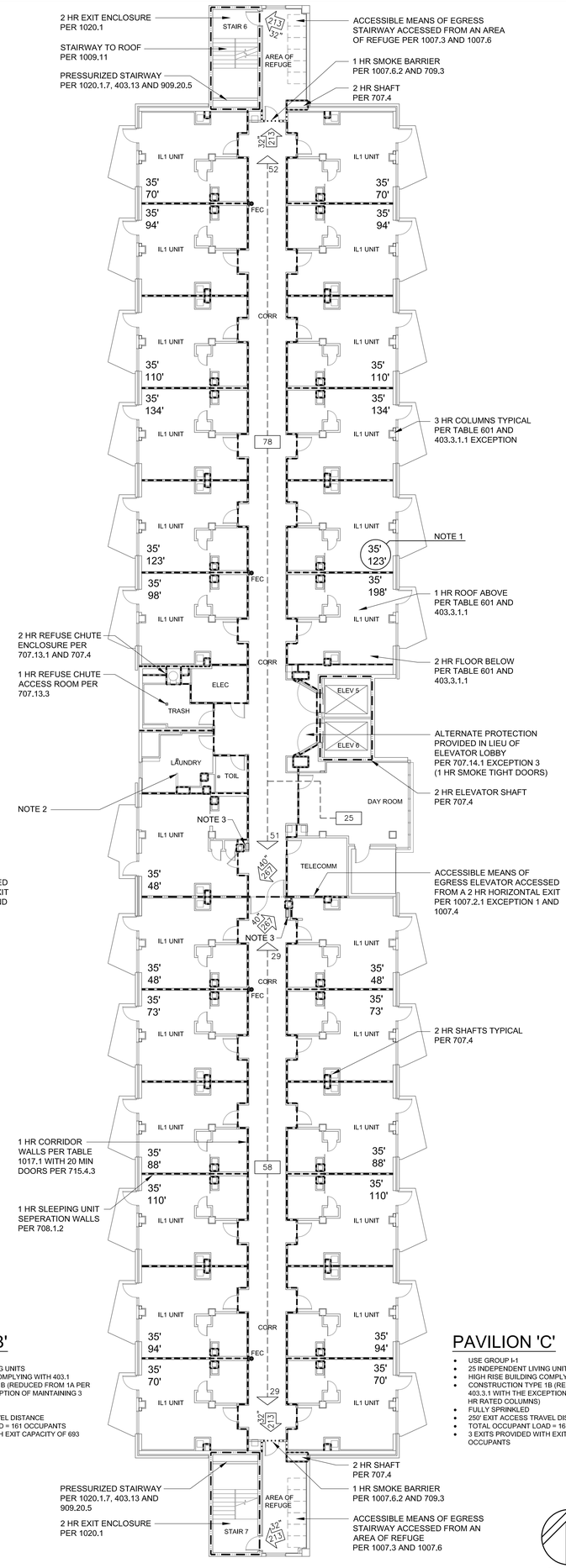
1 LS1.60 3/32"=1'-0" 63

LEVEL 8 LIFE SAFETY PLAN



PAVILION 'B'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS



PAVILION 'C'

- USE GROUP I-1
- 25 INDEPENDENT LIVING UNITS
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 250' EXIT ACCESS TRAVEL DISTANCE
- TOTAL OCCUPANT LOAD = 161 OCCUPANTS
- 3 EXITS PROVIDED WITH EXIT CAPACITY OF 693 OCCUPANTS

PLAN NORTH

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

FIRE PROTECTION LEGEND

- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL
- 1 HR SMOKE BARRIER

EGRESS LEGEND

- 30 — OCCUPANT LOAD
- MEANS OF EGRESS: 123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH; PATH OF EGRESS
- EGRESS CAPACITY OF EXITS: 32" — CLEAR WIDTH OF EGRESS COMPONENT; 123 — CAPACITY OF EGRESS COMPONENT

PLAN NOTES

NOTE 1: TOP FIGURE REPRESENTS TRAVEL DISTANCE INSIDE UNIT. BOTTOM FIGURE REPRESENTS TOTAL TRAVEL DISTANCE TO NEAREST EXIT.

NOTE 2: BUILDING & ROOM IS SPRINKLED. PER TABLE 508.2, ENCLOSURE WALLS MUST RESIST THE PASSAGE OF SMOKE.

NOTE 3: HOSE VALVE CABINET. 2 HR PROTECTION REQUIRED PER 905.4.1 FOR SPRINKLER RISER.

CERTIFICATIONS

COMMONWEALTH OF VIRGINIA
CURTIS R. JENNINGS, JR.
Lic. No. 33004
ARCHITECT

KEY PLAN

REVISION NOTES

MARK	DATE	DESCRIPTION
A	09/08/08	ISSUED FOR CONSTRUCTION
A1	12/23/08	ADDED SPRINKLER RISER CHASES
A2	01/14/09	ARCHITECTURAL & MEP REVISIONS

GRAPHIC SCALE: 0' 5' 10' 20'

CONTRACTORS

A/E CON. NO.	GS-04P-07-EX-C-0099
A/E TASK NO.	
CONS. CONTR.	
CONS. WORK	
PRIME A/E	
SUB A/E	
CONSTR. CON.	

BUILDING

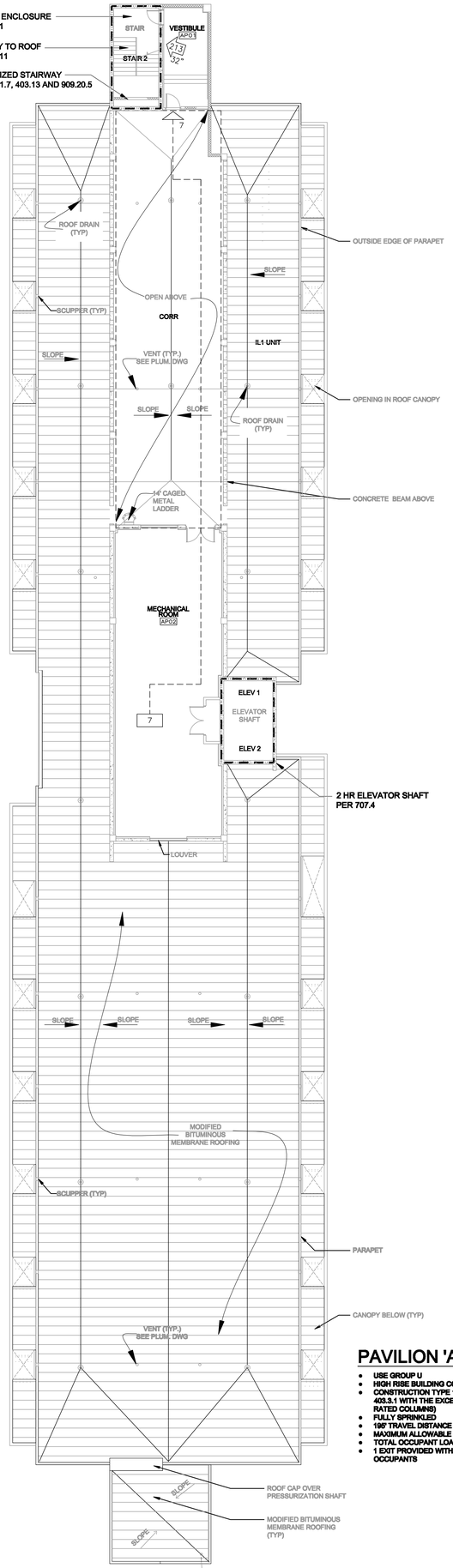
NAME	ARMED FORCES RETIREMENT HOME
STREET	1800 BEACH DRIVE
CITY/ST./ZIP	GULFPORT, MS 39507
BUILDING NO.	
OTHER BUILDING NOs.	
FACILITY CODE	

PROJECT

PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
PROJECT DESCRIPTION	NEW CONSTRUCTION
PROJECT NO.	31942982
GSA PM	STEVEN SMITH
SUBMISSION	ISSUED FOR CONSTRUCTION
SUB. DATE	09/08/2008

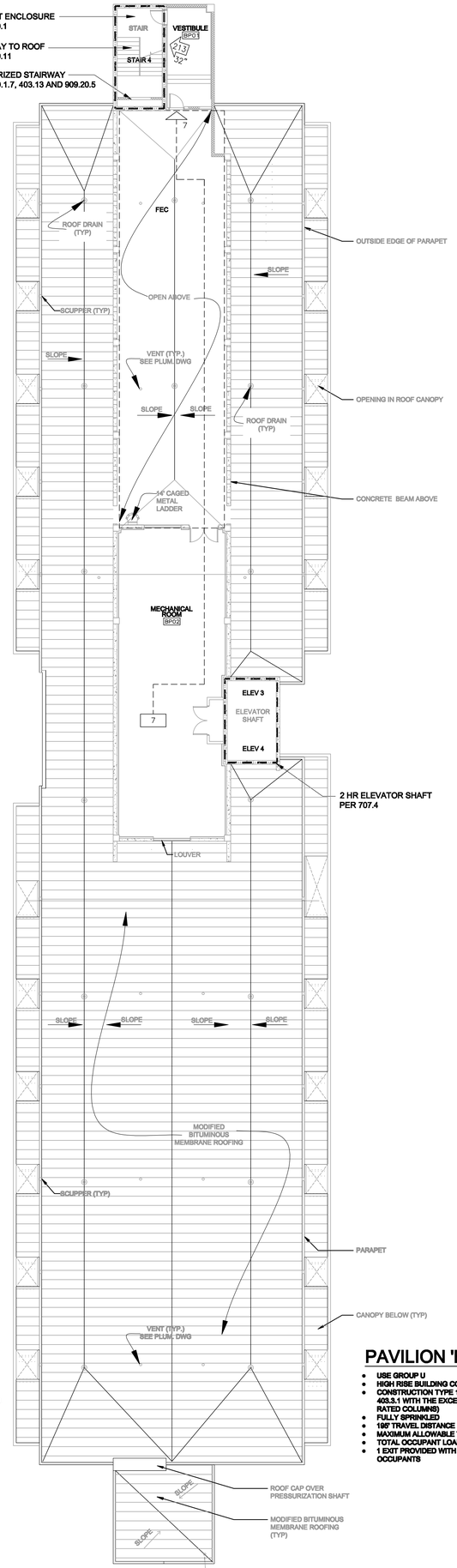
DRAWING

DRAWING TITLE	LEVEL 8 – LIFE SAFETY PLAN
FILE NAME	LS-160-N00957 30.dwg
FLOOR NO.	8
DRAWN BY	MGF DATE DRAFTED: 09/08/2008
CHECKED BY	DPJ SHEET SIZE: 34 X 44
DRAWING NO.	LS 1 60 (DISCIPLINE SHEET TYPE SEQUENCE)
	SHEET ---- OF 213



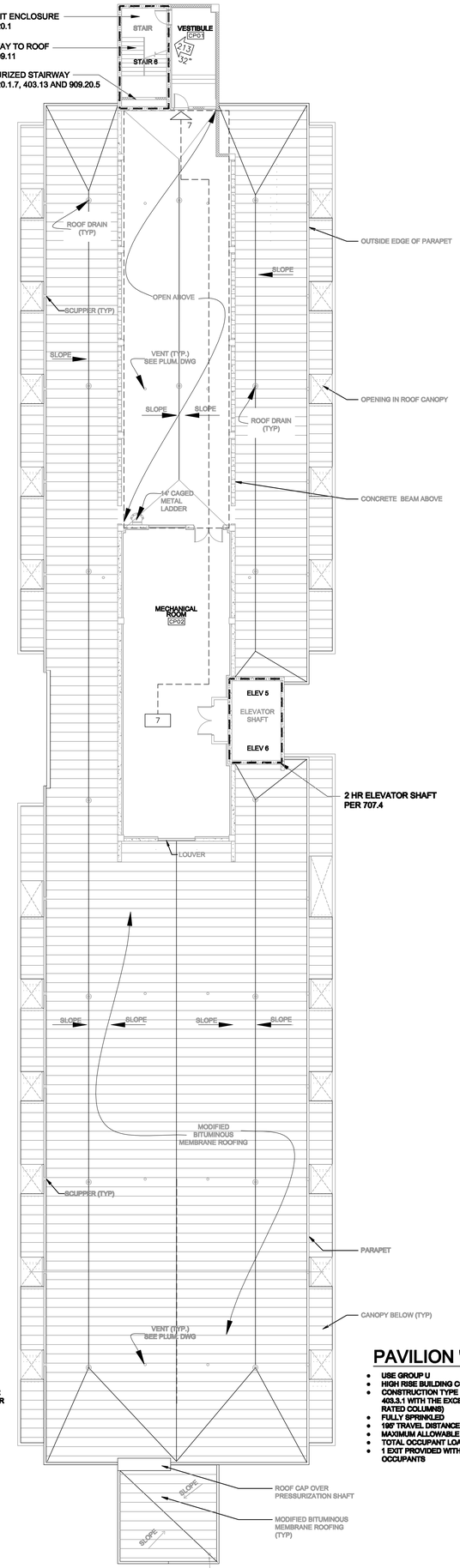
PAVILION 'A'

- USE GROUP U
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 195' TRAVEL DISTANCE
- MAXIMUM ALLOWABLE TRAVEL DISTANCE IS 400'
- TOTAL OCCUPANT LOAD = 7 OCCUPANTS
- 1 EXIT PROVIDED WITH EXIT CAPACITY OF 213 OCCUPANTS



PAVILION 'B'

- USE GROUP U
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 195' TRAVEL DISTANCE
- MAXIMUM ALLOWABLE TRAVEL DISTANCE 400'
- TOTAL OCCUPANT LOAD = 7 OCCUPANTS
- 1 EXIT PROVIDED WITH EXIT CAPACITY OF 213 OCCUPANTS



PAVILION 'C'

- USE GROUP U
- HIGH RISE BUILDING COMPLYING WITH 403.1
- CONSTRUCTION TYPE 1B (REDUCED FROM 1A PER 403.3.1 WITH THE EXCEPTION OF MAINTAINING 3 HR RATED COLUMNS)
- FULLY SPRINKLED
- 195' TRAVEL DISTANCE
- MAXIMUM ALLOWABLE TRAVEL DISTANCE 400'
- TOTAL OCCUPANT LOAD = 7 OCCUPANTS
- 1 EXIT PROVIDED WITH EXIT CAPACITY OF 213 OCCUPANTS

PLAN NORTH

1 LS1.70 **PENTHOUSE LIFE SAFETY PLAN**
N.T.S

PROPERTY OF THE UNITED STATES GOVERNMENT – FOR OFFICIAL USE ONLY. Do not remove this notice. Properly destroy documents when no longer needed.

GSA
GENERAL SERVICES ADMINISTRATION
77 FORSYTH STREET
SUITE 600
ATLANTA, GA 30303
TEL: (404)331-3200

AFRH The Premier Retirement Community for America's Veterans

JACOBS
PROJECT MANAGEMENT CONSULTANT TO THE GENERAL SERVICES ADMINISTRATION

YATES CONSTRUCTION

SFCS Architecture Engineering Planning Interiors

URS
URS CORPORATION
2020 K ST, NW
SUITE 300
WASHINGTON D.C. 20006

FIRE PROTECTION LEGEND

- 1 HR FIRE RATED WALL
- 2 HR FIRE RATED WALL
- 1 HR SMOKE BARRIER

EGRESS LEGEND

30 ← OCCUPANT LOAD

MEANS OF EGRESS
123 — NUMBER OF OCCUPANTS ALONG EGRESS PATH
PATH OF EGRESS

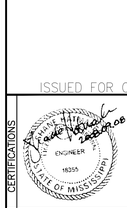
EGRESS CAPACITY OF EXITS
32" — CLEAR WIDTH OF EGRESS COMPONENT
123 — CAPACITY OF EGRESS COMPONENT

PLAN NOTES

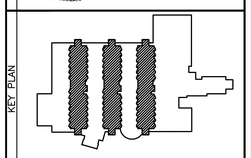
NOTE 1: NOT USED

ISSUED FOR CONSTRUCTION

CERTIFICATIONS



KEY PLAN



REVISION NOTES

MARK	DATE	DESCRIPTION
0	09/08/08	ISSUED FOR CONSTRUCTION

GRAPHIC SCALE: NO SCALE

CONTRACTORS	A/E CON. NO.	GS-04P-07-EX-C-0099
	A/E TASK NO.	
	CONS. CONTR.	
	CONS. WORK	
	PRIME A/E	
	SUB A/E	
	CONSTR. CON.	
BUILDING	NAME	ARMED FORCES RETIREMENT HOME
	STREET	1800 BEACH DRIVE
	CITY/ST./ZIP	GULFPORT, MS 39507
	BUILDING NO.	
	OTHER	
	BUILDING NOs.	
	FACILITY CODE	
PROJECT	PROJECT TITLE	ARMED FORCES RETIREMENT HOME GULFPORT, MISSISSIPPI
	PROJECT DESCRIPTION	NEW CONSTRUCTION
	PROJECT NO.	31942982
	GSA PM	STEVEN SMITH
	SUBMISSION	ISSUED FOR CONSTRUCTION
	SUB. DATE	09/08/2008
DRAWING	DRAWING TITLE	PENTHOUSE LIFE SAFETY PLAN
	FILE NAME	LS-170-N0095730.DWG
	FLOOR NO.	ROOF FLOOR
	DRAWN BY	SH DATE DRAFTED:
	CHECKED BY	SH SHEET SIZE: 34 X 44
	DRAWING NO.	LS 1 70 (DISCIPLINE SHEET TYPE SEQUENCE)
		SHEET OF –