

## Notice of Change

**Date of Notice:** 05/18/2010

**Change Number:** 9022.43

**Comment Period Ending Date:** 06/17/2010

Comments may be submitted electronically during the comment period to [programupdates@greenguard.org](mailto:programupdates@greenguard.org). The comment period begins on the date of notice and ends at 12:00 midnight EST on the comment period ending date listed above. *Please be sure to reference the change number listed above in your correspondence. Correspondence without the change number will be disregarded.*

**Description of Proposed Change:** GEI proposes an updated private office more reflective of building stock to be used for executive casegood office furniture and free standing furniture only. The *PROPOSED* GREENGUARD Private Office has dimensions of 4.57 m x 3.66 m x 2.74 m (15' x 12' x 9'), which results in a room volume of 45.9 m<sup>3</sup> (1,620 ft<sup>3</sup>). The room has one 0.914 m x 2.13 m (3' x 7') door and two 1.22 m x 2.13 m (4' x 7') windows. The office is designed for single occupancy. The ventilation rate is 0.59 ACH.

Room Length	4.57 m (15 ft)
Room Width	3.66 m (12 ft)
Room Height	2.74 m (9 ft)
Room Volume	45.9 m <sup>3</sup> (1,620 ft <sup>3</sup> )
Ventilation Rate	0.59 hr <sup>-1</sup>

The size of the *PROPOSED* GREENGUARD Private Office is based on data from the following sources: US General Services Administration (GSA) Office Space Use Review (1997); GSA Space Usage Update (2002); Efficiency Standards for Office Space - Office of Government Commerce, UK (2007); Canada Northwest Territories Office Space Standards and Guidelines (2003); National Institute of Building Sciences (NIBS) Whole Building Design Guide (2009); Transportation Security Administration (TSA) Management Directive No. 200.12 (2005); Government of Manitoba Office Space Planning Guidelines (2009); Commonwealth of Virginia Space Planning Policy and Procedures (2006); State of Wisconsin Space Location, Allocation, Layout and Measurement Standard Policies (2006); U.S. Courts Design Guide (2007); and Federal Deposit Insurance Corporation (FDIC) Field Office Cost, Space Utilization, Design, and Usage (2001). The ventilation rate of 0.59 ACH is based on ASHRAE Standard 62.1-2007 "Ventilation for Acceptable Indoor Air Quality" using the specified parameters of 5 cfm per person and 0.06 cfm/ft<sup>2</sup> for office spaces in office buildings.

**Response:** The proposed Private Office will be used as presented.

**Effective date:** 8/2/2010

# Attachment 1

## Summary of Research

Office	No.	Area (ft)	Ht (ft)	Vol (ft <sup>3</sup> )	Vol (m <sup>3</sup> )	Reference
Staff-One Person Office		70	9	630	18	GSA Office Space Use Review (1997)
Telecom Company 2 - Support Staff		75	9	675	19	GSA Space Usage Update (2002)
C-Level Employee		75	9	675	19	GSA Office Space Use Review (1997)
Example Building - Enclosed Office III		81	9	726	21	Efficiency Standards for Office Space - Office of Government Commerce, UK (2007)
Telecom Company 1 - Director Low		90	9	810	23	GSA Space Usage Update (2002)
Supervisor		95	9	855	24	GSA Office Space Use Review (1997)
Professional		96	9	864	24	GSA Office Space Use Review (1997)
Professional/Administrative		100	9	900	25	GSA Office Space Use Review (1997)
Supervisor		100	9	900	25	GSA Office Space Use Review (1997)
Enclosed Type C		100	9	900	25	Canada Northwest Territories Office Space Standards and Guidelines (2003)
Professional		108	9	972	28	GSA Office Space Use Review (1997)
Supervisor		115	9	1035	29	GSA Office Space Use Review (1997)
Enclosed Small Offices (26)	26	120	9	1080	31	NIBS Whole Building Design Guide (2009)
Primary Office Space Standard for Staff		120	9	1080	31	GSA Office Space Use Review (1997)
Pay Grades 15 and up		120	9	1080	31	GSA Office Space Use Review (1997)
Supervisor		120	9	1080	31	GSA Office Space Use Review (1997)
Supervisor		120	9	1080	31	GSA Office Space Use Review (1997)
Technical/Professional		120	9	1080	31	GSA Office Space Use Review (1997)
Management		120	9	1080	31	GSA Office Space Use Review (1997)
Human Relations		120	9	1080	31	GSA Office Space Use Review (1997)
All Pay Band Ks, Administrative Officer, Human Resources Specialist, Legal Counsel, Special Agent		120	9	1080	31	TSA Management Directive No. 200.12 (2005)

**GREENGUARD Environmental Institute**

2211 Newmarket Parkway, Suite 110  
 Marietta, GA 30067  
 1.800.427.9681  
 www.greenguard.org



Private Office (PO) 1 (10 ft x 12 ft)		120	9	1080	31	Government of Manitoba Office Space Planning Guidelines (2009)
Asst. Director and Confidential Staff		120	9	1080	31	Commonwealth of Virginia Space Planning Policy and Procedures (2006)
Professional General Requiring Immediate Confidentiality		120	9	1080	31	State of Wisconsin Space Location, Allocation, Layout and Measurement Standard Policies (2006)
Software Engineering Firm - Managerial, Supervisory, Technical		120	9	1597	45	GSA Space Usage Update (2002)
Software Engineering Firm - Director		130	9	1593	45	GSA Space Usage Update (2002)
Consulting Company - Support Staff		132	9	1188	34	GSA Space Usage Update (2002)
Example Building - Enclosed Office II		133	9	1199	34	Efficiency Standards for Office Space - Office of Government Commerce, UK (2007)
Hypothetical Office Layout 3		139	9	1249	35	Efficiency Standards for Office Space - Office of Government Commerce, UK (2007)
Senior Manager		140	9	1260	36	GSA Office Space Use Review (1997)
Manager		140	9	1260	36	GSA Office Space Use Review (1997)
Manager		140	9	1260	36	GSA Office Space Use Review (1997)
Direct Report to VP or Higher		140	9	1260	36	GSA Office Space Use Review (1997)
DC World Bank Building - Office 1		140	9	1260	36	Field Surveys
Software Engineering Firm - Executive		140	9	1679	48	GSA Space Usage Update (2002)
Staff-One Person Office		143	9	1287	36	GSA Office Space Use Review (1997)
Standard 1 (Walls to Ceiling Offices)		144	9	1296	37	GSA Office Space Use Review (1997)
LEED CI-Gold Executive Office		144	9	1296	37	Field Surveys
PO 2 (12 ft x 12 ft)		144	9	1296	37	Government of Manitoba Office Space Planning Guidelines (2009)
Managers & Supervising Professionals		144	9	1296	37	State of Wisconsin Space Location, Allocation, Layout and Measurement Standard Policies (2006)
LEED CI-Gold Human Resources Office		149	9	1341	38	Field Surveys
Telecom Company 1 - Executive Low		150	9	1350	38	GSA Space Usage Update (2002)
Telecom Company 1 - Director High		150	9	1350	38	GSA Space Usage Update (2002)

**GRENGUARD Environmental Institute**

2211 Newmarket Parkway, Suite 110  
 Marietta, GA 30067  
 1.800.427.9681  
 www.grenguard.org



Telecom Company 2 - Managerial, Supervisory, Technical		150	9	1350	38	GSA Space Usage Update (2002)
Enclosed Large Offices (52)	52	150	9	1350	38	NIBS Whole Building Design Guide (2009)
Clerk of Court Visiting Office		150	9	1350	38	U.S. Courts Design Guide (2007)
Professional Administrative and Line Positions		150	9	1350	38	U.S. Courts Design Guide (2007)
Attorney		150	9	1350	38	U.S. Courts Design Guide (2007)
Clerk of Visiting Court Office		150	9	1350	38	U.S. Courts Design Guide (2007)
Professional Administration and Line Positions		150	9	1350	38	U.S. Courts Design Guide (2007)
Courtroom Deputy		150	9	1350	38	U.S. Courts Design Guide (2007)
Pro se Law Clerk		150	9	1350	38	U.S. Courts Design Guide (2007)
Professional Administrative and Professional Line Positions		150	9	1350	38	U.S. Courts Design Guide (2007)
PSA and PO Officers		150	9	1350	38	U.S. Courts Design Guide (2007)
Professional Staff		150	9	1350	38	U.S. Courts Design Guide (2007)
Attorney		150	9	1350	38	U.S. Courts Design Guide (2007)
Staff Attorneys		150	9	1350	38	U.S. Courts Design Guide (2007)
Office 3 (Smallest - Cubicles below this office size)		150	9	1350	38	GSA Office Space Use Review (1997)
Manager		150	9	1350	38	GSA Office Space Use Review (1997)
Standard 2		150	9	1350	38	GSA Office Space Use Review (1997)
Senior Manager		150	9	1350	38	GSA Office Space Use Review (1997)
Deputy FSD, Assistant FSD, Senior Lead Counsel		150	9	1350	38	TSA Management Directive No. 200.12 (2005)
Office Example 2		150	9	1350	38	FDIC Field Office Cost, Space Utilization, Design, and Usage (2001)
D or C-Level Employee		150	9	1350	38	GSA Office Space Use Review (1997)
Agency or Department Director		150	9	1350	38	Commonwealth of Virginia Space Planning Policy and Procedures (2006)
Enclosed Type B		150	9	1350	38	Canada Northwest Territories Office Space Standards and Guidelines (2003)

**GREENGUARD Environmental Institute**

2211 Newmarket Parkway, Suite 110  
 Marietta, GA 30067  
 1.800.427.9681  
 www.greenguard.org



Section Manager		150	9	1350	38	GSA Office Space Use Review (1997)
Managers		156	9	1404	40	GSA Office Space Use Review (1997)
Direct Report to VP or Higher		160	9	1440	41	GSA Office Space Use Review (1997)
Managers		160	9	1440	41	State of Wisconsin Space Location, Allocation, Layout and Measurement Standard Policies (2006)
Assistant Commissioner		168	9	1512	43	GSA Office Space Use Review (1997)
Executive Secretary/Reception Area		170	9	1530	43	U.S. Courts Design Guide (2007)
LEED CI-Gold Managers Office		173	9	1557	44	Field Surveys
Consulting Company - Managerial, Supervisory, Technical		175	9	1575	45	GSA Space Usage Update (2002)
Telecom Company 2 - Director		175	9	1575	45	GSA Space Usage Update (2002)
Chief Deputy Clerk		180	9	1620	46	U.S. Courts Design Guide (2007)
Manager		180	9	1620	46	U.S. Courts Design Guide (2007)
Chief Deputy Clerk		180	9	1620	46	U.S. Courts Design Guide (2007)
Deputy Clerk in Charge		180	9	1620	46	U.S. Courts Design Guide (2007)
First-Line Supervisors		180	9	1620	46	U.S. Courts Design Guide (2007)
Manager		180	9	1620	46	U.S. Courts Design Guide (2007)
Deputy Chief Probation Officer		180	9	1620	46	U.S. Courts Design Guide (2007)
Manager		180	9	1620	46	U.S. Courts Design Guide (2007)
Professional First-Line Supervisor		180	9	1620	46	U.S. Courts Design Guide (2007)
Deputy		180	9	1620	46	U.S. Courts Design Guide (2007)
Assistant Circuit Executive		180	9	1620	46	U.S. Courts Design Guide (2007)
Senior Supervising Staff Attorney		180	9	1620	46	U.S. Courts Design Guide (2007)
Other Supervising Staff Attorney		180	9	1620	46	U.S. Courts Design Guide (2007)
Conference Pre-Argument Attorney		180	9	1620	46	U.S. Courts Design Guide (2007)
Vice President		180	9	1620	46	GSA Office Space Use Review (1997)
Manager		180	9	1620	46	GSA Office Space Use Review (1997)

**GREENGUARD Environmental Institute**

2211 Newmarket Parkway, Suite 110  
 Marietta, GA 30067  
 1.800.427.9681  
 www.greenguard.org



LEED-NC Silver Government Building		180	9	1620	46	Field Surveys
Example Building - Enclosed Office I		186	9	1670	47	Efficiency Standards for Office Space - Office of Government Commerce, UK (2007)
Level 2 Dir, Program Manager, Production Manager		190	9	1710	48	GSA Office Space Use Review (1997)
Senior Management/Directors		190	9	1710	48	GSA Office Space Use Review (1997)
PO 3 (12 ft x 16 ft)		192	9	1728	49	Government of Manitoba Office Space Planning Guidelines (2009)
Administrator		192	9	1728	49	State of Wisconsin Space Location, Allocation, Layout and Measurement Standard Policies (2006)
Agency or Department Director		196	9	1764	50	Commonwealth of Virginia Space Planning Policy and Procedures (2006)
Hypothetical Office Layout 2		197	9	1772	50	Efficiency Standards for Office Space - Office of Government Commerce, UK (2007)
Field Security Director (FSD)		200	9	1800	51	TSA Management Directive No. 200.12 (2005)
LEED CI-Gold Executive Office		202	9	1818	51	Field Surveys
LEED CI-Gold Executive Office		205	9	1845	52	Field Surveys
Executive Office		206	9	1854	52	GSA Office Space Use Review (1997)
LEED CI-Gold Executive Office		208	9	1872	53	Field Surveys
Executive		216	9	1944	55	State of Wisconsin Space Location, Allocation, Layout and Measurement Standard Policies (2006)
Agency Division Directors		216	9	1944	55	GSA Office Space Use Review (1997)
Bureau Chief		220	9	1980	56	GSA Office Space Use Review (1997)
Deputy Commissioner		224	9	2016	57	GSA Office Space Use Review (1997)
Consulting Company - Director		225	9	2025	57	GSA Space Usage Update (2002)
Telecom Company 2 - Executive		225	9	2025	57	GSA Space Usage Update (2002)
Enclosed Executive Offices (2)	2	225	9	2025	57	NIBS Whole Building Design Guide (2009)
Office 2 (Moderate)		225	9	2025	57	GSA Office Space Use Review (1997)
Subsidiary VP, Division VP, Program VP, Level 1 Dir, GM		225	9	2025	57	GSA Office Space Use Review (1997)



Department Head		225	9	2025	57	GSA Office Space Use Review (1997)
Office Example 1		225	9	2025	57	FDIC Field Office Cost, Space Utilization, Design, and Usage (2001)
E or D-Level Employee		225	9	2025	57	GSA Office Space Use Review (1997)
Vice President		230	9	2070	59	GSA Office Space Use Review (1997)
Clerk Office		240	9	2160	61	U.S. Courts Design Guide (2007)
Clerk		240	9	2160	61	U.S. Courts Design Guide (2007)
Chief Probation Officer		240	9	2160	61	U.S. Courts Design Guide (2007)
Circuit Executive/District Court Executive		240	9	2160	61	U.S. Courts Design Guide (2007)
Clerk		240	9	2160	61	U.S. Courts Design Guide (2007)
Senior Staff Attorney		240	9	2160	61	U.S. Courts Design Guide (2007)
Senior Pre-Argument Conference Attorney		240	9	2160	61	U.S. Courts Design Guide (2007)
Enclosed Type A		240	9	2160	61	Canada Northwest Territories Office Space Standards and Guidelines (2003)
Vice President		250	9	2250	64	GSA Office Space Use Review (1997)
Hypothetical Office Layout 1		255	9	2295	65	Efficiency Standards for Office Space - Office of Government Commerce, UK (2007)
Subsidiary VP, Division VP, Program VP, Level 1 Dir, GM		256	9	2304	65	GSA Office Space Use Review (1997)
Primary Office Space Standard for Department/Agency Head		256	9	2304	65	GSA Office Space Use Review (1997)
Division Director		270	9	2430	69	GSA Office Space Use Review (1997)
Department Head		270	9	2430	69	GSA Office Space Use Review (1997)
Vice President		270	9	2430	69	GSA Office Space Use Review (1997)
Director		280	9	2520	71	GSA Office Space Use Review (1997)
Executive Management		290	9	2610	74	GSA Office Space Use Review (1997)
Telecom Company 1 - Executive High		300	9	2700	76	GSA Space Usage Update (2002)
Office 1 (Largest)		300	9	2700	76	GSA Office Space Use Review (1997)
Standard 1		300	9	2700	76	GSA Office Space Use Review (1997)

**GRENGUARD Environmental Institute**

2211 Newmarket Parkway, Suite 110  
 Marietta, GA 30067  
 1.800.427.9681  
 www.greenguard.org



Div. President, Corporate VP, Senior VP, Group VP		300	9	2700	76	GSA Office Space Use Review (1997)
Executives in a Private Office		300	9	2700	76	GSA Office Space Use Review (1997)
DC World Bank Building - Office 2		300	9	2700	76	Field Surveys
E-Level Employee		300	9	2700	76	GSA Office Space Use Review (1997)
Div. President, Corporate VP, Senior VP, Group VP		320	9	2880	82	GSA Office Space Use Review (1997)
Agency Head		320	9	2880	82	GSA Office Space Use Review (1997)
Commissioner		320	9	2880	82	GSA Office Space Use Review (1997)
Consulting Company - Executive		325	9	2925	83	GSA Space Usage Update (2002)
Executive		350	9	3150	89	GSA Office Space Use Review (1997)
Agency Head		360	9	3240	92	GSA Office Space Use Review (1997)
Executive		370	9	3330	94	GSA Office Space Use Review (1997)
State Commissioners		400	9	3600	102	GSA Office Space Use Review (1997)
Agency Head		400	9	3600	102	GSA Office Space Use Review (1997)
Executive Office		411	9	3699	105	GSA Office Space Use Review (1997)
Statistical Measure	N	Area (ft <sup>2</sup> )	Ceiling Ht (ft)	Volume (ft <sup>3</sup> )	Volume (m <sup>3</sup> )	
Average of All Data Inputs	151	189	9	1706	48	
Median of All Data Inputs	151	180	9	1620	46	
<u>Air Change Rate Calculation:</u>						
Floor Area (ft <sup>2</sup> )	180					
<b>Suggested Dimension (L[ft] x W[ft])</b>	<b>15 x 12</b>					
<b>Suggested Ceiling Height (ft)</b>	<b>9</b>					
Volume (ft <sup>3</sup> )	1620					

**GREENGUARD Environmental Institute**

2211 Newmarket Parkway, Suite 110  
Marietta, GA 30067  
1.800.427.9681  
www.greenguard.org



Volume (m <sup>3</sup> )	46					
ASHRAE Standard 62.1-2007 Input for Floor Area (cfm/ft <sup>2</sup> )	0.06					
ASHRAE Standard 62.1-2007 Input for Person (cfm/person)	5					
Person(s) per Office	1					
Total cfm	15.8					
Total cfh	948					
<b>Total ACH</b>	<b>0.59</b>					