ASHRAE 189.1

A model code that contains minimum requirements for high performance buildings and sites. The standard applies to a variety of campus buildings including classrooms, libraries, dormitories, and administrative offices.

| Feature | Brief Description | Benefits to Campus |
|----------------------------------|--|--|
| Integrative Design Process | Early collaboration among representatives of each stakeholder and participating consultant on the project. | Develop cost savings and elegant solutions through a collaborative process. |
| Commissioning | Third Party review of building design and construction to ensure owner's project requirements are met. | Achieve goals of the project and identify risks during construction. Deliver a functional building with fewer "day one" issues. Reduce contractor call backs. Provide a comfortable and safe environment for students and staff. |
| Water Efficiency | Use efficient irrigation and high performance plumbing fixtures. | Conserve resources, save money, reduce maintenance costs. |
| Energy Efficiency/ Renewables | Establishes best practices for lighting and HVAC efficiency. Sets standards for building envelope that go beyond 90.1. | Conserve resources, save money, reduce maintenance costs, improve thermal comfort. |
| Indoor Air Quality | Promotes human health by requiring use of air filtration and low-emitting paints, adhesives, and sealants. | Promotes student and staff health and wellness. Improved indoor air quality is shown to improve cognitive performance (Harvard Study). |





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Healthy Buildings For Your Campus

USG Facilities Officers Conference 2017

WELL Building

WELL is a performance based system for measuring, certifying and monitoring features of the built environment that impact human







health and well-being. WELL focuses on how the physical built environment supports human health, productivity, well-being and comfort, marrying best practices in design and construction with evidence-based health and wellness interventions.

| Feature | Brief Description | Benefits to Campus |
|--|---|---|
| 54: Circadian Lighting Design | Select lighting systems that follow the same pattern as natural daylight. | Enhance mood and productivity by choosing lighting systems that benefit student sleep patterns. |
| 88: Biophilia | Include natural elements/patterns in the design. | Nurture the innate human-nature connection within the project. |
| 39: Processed Foods | Limit sugar, promote whole grain foods. | Promote healthy weight and reduce risk of diabetes. |
| 84: Health and Wellness Awareness | Provide a health and wellness library. | Promote healthy literacy. |
| 95: Stress and Addiction Treatment | Provide programs for students to receive mental health counseling and guidance. | Provide students with tools to manage stress and anxiety. |

Certification Matrix

WELL Building Standard v1: New and Existing Buildings

Project: Facility Officers Conference
Location: Atlanta
Updated By: Kat West, JLL
Date: 10/26/2017



| | | | | AIR |
|----|---|----|------|---|
| Υ | ? | N | | |
| Y | | | Р | 01 Air Quality Standards* |
| Y | | | Р | 02 Smoking Ban* |
| Y | | | Р | 03 Ventilation Effectiveness |
| Y | | | Р | 04 VOC Reduction |
| Y | | | Р | 05 Air Filtration* |
| Y | | | Р | 06 Microbe And Mold Control* |
| Y | | | Р | 07 Construction Pollution Management |
| Y | | | Р | 08 Healthy Entrance* |
| Y | | | Р | 09 Cleaning Protocol |
| Y | | | Р | 10 Pesticide Management |
| Y | | | Р | 11 Fundamental Material Safety |
| Y | | | Р | 12 Moisture Management |
| | | N | 0 | 13 Air Flush |
| | | N | 0 | 14 Air Infiltration Management |
| | | N | 0 | 15 Increased Ventilation |
| | | N | 0 | 16 Humidity Control* |
| | | N | 0 | 17 Direct Source Ventilation* |
| | | N | 0 | 18 Air Quality Monitoring And Feedback* |
| | | N | 0 | 19 Operable Windows* |
| | | N | 0 | 20 Outdoor Air Systems |
| | | N | 0 | 21 Displacement Ventilation |
| | | N | 0 | 22 Pest Control* |
| | | N | 0 | 23 Advanced Air Purification* |
| | | N | 0 | 24 Combustion Minimization* |
| | | N | 0 | 25 Toxic Material Reduction |
| | | N | 0 | 26 Enhanced Material Safety |
| | | N | 0 | 27 Antimicrobial Activity for Surfaces |
| | | N | 0 | 28 Cleanable Environment* |
| | | N | 0 | 29 Cleaning Equipment* |
| 12 | 0 | 17 | TOTA | NL |

| | | | W | ATER |
|---|---|---|------|-----------------------------------|
| Y | ? | N | | |
| Y | | | Р | 30 Fundamental Water Quality* |
| Y | | | Р | 31 Inorganic Contaminants* |
| Y | | | Р | 32 Organic Contaminants* |
| Y | | | Р | 33 Agricultural Contaminants* |
| Y | | | Р | 34 Public Water Additives* |
| | | N | 0 | 35 Periodic Water Quality Testing |
| | | N | 0 | 36 Water Treatment* |
| | | N | 0 | 37 Drinking Water Promotion* |
| | | 3 | TOTA | - AL |

| | | NO | UR | ISHMENT |
|---|---|----|------|------------------------------------|
| Υ | ? | N | | |
| Y | | | Р | 38 Fruits And Vegetables* |
| Y | | | Р | 39 Processed Foods* |
| Y | | | Р | 40 Food Allergies* |
| Y | | | Р | 41 Hand Washing* |
| Y | | | Р | 42 Food Contamination* |
| Y | | | Р | 43 Artificial Ingredients* |
| Y | | | Р | 44 Nutritional Information* |
| Y | | | Р | 45 Food Advertising* |
| | | N | 0 | 46 Safe Food Preparation Materials |
| | | N | 0 | 47 Serving Sizes* |
| | | N | 0 | 48 Special Diets |
| | | N | 0 | 49 Responsible Food Production |
| | | N | 0 | 50 Food Storage* |
| | | N | 0 | 51 Food Production* |
| | | N | 0 | 52 Mindful Eating |
| 8 | 0 | 7 | TOTA | AL |
| | | | | |

| | | | | GHT |
|---|---|---|------|---|
| Υ | ? | N | | |
| Y | | | Р | 53 Visual Lighting Design* |
| Y | | | Р | 54 Circadian Lighting Design* |
| Y | | | Р | 55 Electric Light Glare Control |
| Y | | | Р | 56 Solar Glare Control* |
| | | N | 0 | 57 Low-Glare Workstation Design* |
| | | N | 0 | 58 Color Quality |
| | | N | 0 | 59 Surface Design |
| | | N | 0 | 60 Automated Shading And Dimming Contro |
| | | N | 0 | 61 Right To Light* |
| | | N | 0 | 62 Daylight Modeling |
| | | N | 0 | 63 Daylighting Fenestration* |
| 4 | 0 | 7 | TOTA | L |

| | | | FIT | NESS |
|---|---|---|------|-------------------------------------|
| Y | ? | N | | |
| Y | | | Р | 64 Interior Fitness Circulation* |
| Y | | | Р | 65 Activity Incentive Programs |
| | | N | 0 | 66 Structured Fitness Opportunities |
| | | N | 0 | 67 Exterior Active Design* |
| | | N | 0 | 68 Physical Activity Spaces |
| | | N | 0 | 69 Active Transportation Support* |
| | | N | 0 | 70 Fitness Equipment* |
| | | N | 0 | 71 Active Furnishings* |
| 2 | | 6 | TOTA | L |

| | | | CO | MF | ORT |
|---|---|---|------|----|-------------------------------|
| Υ | ? | N | | | |
| Υ | | | Р | 72 | ADA Accessible Design Standa |
| Υ | | | Р | 73 | Ergonomics: Visual And Physic |
| Υ | | | Р | 74 | Exterior Noise Intrusion* |
| Υ | | | Р | 75 | Internally Generated Noise* |
| Y | | | Р | 76 | Thermal Comfort* |
| | | N | 0 | 77 | Olfactory Comfort |
| | | N | 0 | 78 | Reverberation Time* |
| | | N | 0 | 79 | Sound Masking* |
| | | N | 0 | 80 | Sound Reducing Surfaces |
| | | N | 0 | 81 | Sound Barriers |
| | | N | 0 | 82 | Individual Thermal Control* |
| | | N | 0 | 83 | Radiant Thermal Comfort |
| | | 7 | TOTA | L | |

| | | | N | IIN | D |
|---|---|----|------|-----|------------------------------|
| Y | ? | N | | | |
| Y | | | Р | 84 | Health And Wellness Awarer |
| Y | | | Р | 85 | Integrative Design |
| Y | | | Р | 86 | Post-Occupancy Surveys |
| Y | | | Р | 87 | Beauty And Design I* |
| Y | | | Р | 88 | Biophilia I - Qualitative* |
| | | N | 0 | 89 | Adaptable Spaces* |
| | | N | 0 | 90 | Healthy Sleep Policy |
| | | N | 0 | 91 | Business Travel |
| | | N | 0 | 92 | Building Health Policy |
| | | N | 0 | 93 | Workplace Family Support |
| | | N | 0 | 94 | Self-Monitoring |
| | | N | 0 | 95 | Stress And Addiction Treatm |
| | | N | 0 | 96 | Altruism |
| | | N | 0 | 97 | Material Transparency* |
| | | N | 0 | 98 | Organizational Transparency |
| | | N | 0 | 99 | Beauty And Design II* |
| | | N | 0 | 100 | Biophilia II - Quantitative* |
| | | N | 0 | 101 | Innovation Feature I |
| | | | 0 | 102 | Innovation Feature II |
| | | | 0 | 103 | Innovation Feature III |
| | | | 0 | 104 | Innovation Feature IV |
| | | | 0 | 105 | Innovation Feature V |
| 5 | 0 | 13 | TOTA | L | |

| | | | SUMMARY |
|----|---|----|-----------------------------|
| Y | ? | N | |
| 41 | 0 | 0 | Preconditions (41 possible) |
| 0 | 0 | 60 | Optimizations (64 possible) |

| | Requirements | Results |
|---------------|--|------------------------------|
| Preconditions | Must meet all preconditions. | All preconditions satisfied. |
| Optmizations | 0 needed for Silver, 24 for gold,48 for platinum | Current status: Silver |

^{*} Pending onsite post-occupancy Performance Verification testing.