

IDC

Architectural

Sheet Index

G-101 Architectural Titlesheet	M-002 Mechanical Calculations
G-103 Efficiency Calculations	M-101 Cogeneration System
C-101 Site Plan	4K-A-001 4K Titlesheet
A-101 First Floor Plan	4K-A-101 4K Floor Plans
A-102 Second Floor Plan	4K-A-301 4K Sections
A-103 Third Floor Plan	4K-A-401 4K Ceiling Plan
A-104 Fourth Floor Plan	4K-F-101 4K Sprinkler System
A-105 Fifth Floor Plan	4K-E-101 Receptacle Plan
A-106 Sixth Floor Plan	4K-E-102 Lighting Plan
A-107 Seventh Floor Plan	4K-M-101 4K HVAC Layout
A-108 Eighth Floor Plan	
A-201 North Elevation	
A-202 East Elevation	
A-203 South Elevation	
A-204 West Elevation	
A-301 Longitudinal Building Section	
A-302 Transverse Building Section	
A-303 Wall Section	
A-304 Wall Section	
A-305 Stair Section	
A-401 Enlarged Core Plan	
A-402 Enlarged Service Plan	
F-101 Standpipe Location & Coverage	
F-102 First Floor Egress Plans	
F-103 Second Floor Egress Plans (Typical)	
E-001 Electrical Titlesheet	
E-101 Enlarged Electrical & Generator Plans	
E-102 Enlarged Fire Command Center & Electrical Rooms	
E-601 One Line Diagram	
S-001 Structural Titlesheet	
S-002 Structural Calculations	
S-003 Structural Calculations	
S-004 Structural Calculations	
S-005 Structural Calculations	
S-101 Foundation Plan	
S-102 Second Floor Framing Plan	
S-103 Third Floor Framing Plan	
S-104 Fourth Floor Framing Plan	
S-105 Fifth Floor Framing Plan	
S-106 Sixth Floor Framing Plan	
S-107 Seventh Floor Framing Plan	
S-108 8th Floor Framing Plan	
S-201 Northern Structural Elevation	
S-202 Eastern Structural Elevation	
S-203 Southern Structural Elevation	
S-204 Western Structural Elevation	
P-001 Plumbing Titlesheet	
P-901 Plumbing Riser	
M-001 Mechanical Titlesheet	

Project Narrative

The process of flight is turbulent. Turbulence can be encountered randomly in flight, and influences the movement of aircraft. Likewise, the process of design can be said to be turbulent; the result of multiple problems, and their solutions. Design should be responsive to the environment in question. In an airplane, it responds with structure, form, and the utilization of airflow through turbine engines.

An office building should not be any different. It must be designed in response to the environment, working with, and not in opposition. Such is the premise of sustainable architecture. Therefore, our Boeing IDC office building responds to both the natural and constructed environments of Washington D.C, utilizing airflow as a primary sustainable concept.

The form is a reaction to public circulation, program, fabricated context, and natural context. The majority of public circulation takes place along Tingey Street SE and wraps around along 4th Street SE towards the park to the south. In response to the pedestrian level and these attractions, an arcade leads to a secondary park sweeping from Tingey towards The Yards Park to the south. This element acts as an extension to The Yards Park, becoming a destination along the way, and drawing attention to retail below.

The horizontal and rectilinear form is a response to the fabricated context of the adjacent historic buildings and program. Security plays a role in Boeing, and as such the form reflects this, maintaining the ribbon windows in prime tenant spaces. Near the entry, these ribbon windows shift to curtain walls to reveal the interior, a response to the spec tenant occupancy and a play on the secrecy of the prime tenant.

In response to natural context, several slices were taken out of the rectangular form along the eastern and western facades. These slices provide a channel for deeper natural ventilation from southern breezes in the summer, spring, and fall. The southern portion is pushed north to reduce lease span and improve the area receiving natural light.

A Double skin and naturally ventilated airspace are located along the southern and northern facades. The southern double skin addresses views to the park while allowing natural ventilation during required seasons. The northern airspace works as a thermal temper from winter breezes and allows airflow to be carried through the building from the southern skin. The eastern and western facades work as scoops for breezes to be pulled through offices and naturally cool the building. Fans assist the double skin in the summer, preventing the innerstitial space from overheating. An atrium is positioned north of the building core to provide a stack effect and natural lighting as a result of the lease span. "Turbulent" bridges span the atrium to provide a sufficient means of egress.

Consultants

Structural Engineer
Hollee Becker

Mechanical Engineer
Matthew Setzekorn

Electrical Engineer
Jim Stadelman

Aeronautic Specialist
David Aston

Contract Information

Forest City
Washington
1615 L Street NW,
Suite 400
Washington, DC
20036

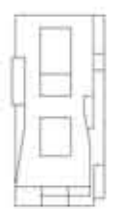
Phone: 202-406-6600
www.dowashington.com

Kent State University
College of
Architecture &
Environmental Design

Client



Key Plan



Date: 3/6/2011
Drwn by: Travis Clarke
Chkd by: Harker
Sheet Title:
Titlesheet