



Donley's Aids Growth at the Cleveland Clinic's Main Campus

The Cleveland Clinic is one of the largest and most respected nonprofit medical centers in the U.S., and is world-renowned for its research and specialty programs. In 2005, the Clinic had 2.8 million outpatient visits and nearly 70,000 admissions to its facilities.

In its annual "America's Best Hospitals" survey, *U.S. News & World Report* has consistently named the Cleveland Clinic as one

of the nation's best hospitals and has named the Clinic's heart program as number one in the country for the past 12 years. The Heart and Vascular Institute, the largest of the Clinic's research programs, is considered the largest such program in the country and is a leader in cardiac surgery, cardiology, cardiothoracic anesthesia and research into the heart and its diseases. Accommodating more than 224,000 patient visits per year, the Institute has the largest surgical valve practice in the country and is one of the busiest transplant centers in the U.S.

Determined to consolidate all aspects of its world-class heart center under one roof, construction of a new state-of-the-art facility for the Heart and Vascular Institute became part of Cleveland Clinic's strategic plan. That plan was implemented with the start of construction on the new 970,000-square-foot heart center complex in May 2005.

Donley's was responsible for the new facility's cast-in-place concrete structure, including nine elevator/stair tower cores, 210,000 square feet of flat plate structural decks, and more than 114,000 square feet



The new Heart and Vascular Institute will serve as the gateway to the Clinic's main campus in downtown Cleveland. NBBJ is the design architect for the project.

of pan/joist decks. Covering a 120,000-square-foot footprint, the project utilized almost 30,000 cubic yards of concrete. Despite a very aggressive 10-month schedule, the firm completed its work two weeks ahead of schedule.

When completed in 2008, the Arnold and Sydell Miller Family Pavilion Heart & Vascular Institute will include a 10-story bed tower, clinical space, and a technology building. The hospital tower will house 288 beds for inpatients, most in private rooms, and will focus on amenities that promote the Clinic's "healing hospitality" concept for patient care. The tower will also house a fully-equipped conference center, enabling doctors from around the world to meet, confer, and share their knowledge.



Donley's completed the concrete work for the Clinic's new Heart Center in June 2006.

The technology building will feature facilities where cardiologists and surgeons can perform complex and highly technical procedures and areas where patients will receive around-the-clock intensive care. Procedural areas include cardiothoracic operating rooms, cardiac catheterization labs, and electrophysiology
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Donley's Aids Clinic's Growth

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labs, as well as cardiac radiology and nuclear medicine facilities. Patient areas include a recovery unit for same-day procedures and specialized intensive care units, featuring a coronary intensive care unit, a heart failure intensive care unit, and two surgical intensive care units.

Donley's Leads the Construction of the Cleveland Clinic's Vital New Infrastructure

Approximately 1,500 new jobs will be added with the opening of the new heart center, bringing the total number of employees in just this one building to 5,000. In order to support this increase in staff, as well as the anticipated increase in patients, more infrastructure was needed on the Clinic's main campus in downtown Cleveland in the form of support space and parking.

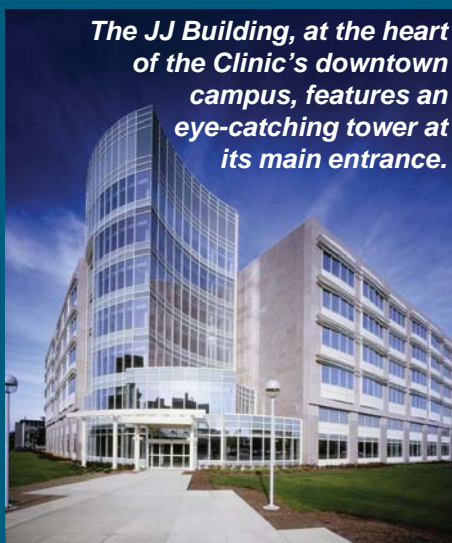
Donley's, along with architect **Bostwick Design Partnership**, has played a major role in the development of this infrastructure since the Clinic selected the site for the new heart center. Upon analyzing current space at its main campus, the Clinic chose the site occupied by its main parking deck on the busy campus. As a result of this decision, a new parking deck needed to be constructed to replace the one that would be demolished to accommodate the new heart center.

The East 93rd Street Office Building and Parking Deck (known as the JJ Building) was completed in 2005, with Donley's as Construction Manager. Located across the street from the

Rendering of the expanded JJ Building courtesy of Bostwick Design Partnership.



new heart center complex, the JJ Building provides 131,000 square feet of office space for cardiovascular research and administration functions. The facility also houses a pharmacy and the operations command center for the entire main campus, as well as 420,000 square feet of much-needed parking. In addition to its responsibilities as CM for the overall project, Donley's was also awarded the interior buildout of the medical office building.



The JJ Building, at the heart of the Clinic's downtown campus, features an eye-catching tower at its main entrance.

The completion of the new parking deck meant demolition of the old deck occupying the future heart center site could proceed. While Donley's performed the concrete construction for the heart center, the firm and the Clinic were also planning for the expansion of the JJ Building. In April 2006, Donley's, again serving as CM, began constructing a 482,000-square-foot expansion to the facility it had just completed and put into operation. The expansion includes a 364,000-square-foot, seven-level parking deck that will accommodate an additional 1,224 vehicles, as well as 117,850 square feet of office space on six floors. Construction of the JJ expansion is expected to be completed in fall 2007.

Heart Center & JJ Building Projects At-A-Glance

Heart Center

Donley's Role: Structural Concrete Contractor

Size: 900,000 square feet;
10 stories

Footprint: 120,000 square feet

Concrete: 29,300 cubic yards

Elevator/Stair Towers: 9

Completed: June 2006
(Donley's portion)

JJ Building

Donley's Role: Construction Manager & Structural Concrete Contractor

Size:
MOB: 131,000 square feet;
6 levels

Deck: 420,000 square feet;
7 levels

Parking Spaces: 1,400
Completed: July 2005

JJ Building Expansion

Donley's Role: Construction Manager & Structural Concrete Contractor

Size:
MOB: 117,850 square feet;
6 levels

Deck: 364,120 square feet;
7 levels

Parking Spaces: 1,224
Anticipated Completion: Oct. 2007

East 89th Street Service Center & Parking Deck to Serve as the Cleveland Clinic's New Service Hub

The Cleveland Clinic's main campus is constantly growing and changing. One aspect that has seemed to remain the same, though, was that there was no centralized service area that could efficiently provide support to the entire campus. With the major addition of the new Arnold and Sydell Miller Family Pavilion Heart & Vascular Institute, the largest endeavor in the Clinic's history, as well as the new Glickman Tower that will house the Glickman Urological Institute, the Clinic made the decision to finally create such a space.

In October 2006, Donley's, as Construction Manager, began construction on the Cleveland Clinic's East 89th Street Service Center and Parking Deck. Designed by **Bostwick Design Partnership**, the structure is one of the largest projects currently under construction in Northeast Ohio, encompassing more than 1.5 million square feet and having a footprint approximately the size of three football fields placed side by side.

The Service Center

The Clinic has long desired a centrally located service center capable of supporting its entire expanding campus in downtown Cleveland. With the addition of the Miller Pavilion and the Glickman Tower, that desire became a necessity.



*Looking West:
A bird's eye view of the
new Service Center & Parking Deck.
Image courtesy of Bostwick Design Partnership.*

Currently, the facilities for departments such as Materials Management, Waste Management, Food Storage & Prep, Central Sterile Supply, and Linen Storage are spread throughout the campus, making coordination between any of them difficult. Furthermore, they are not efficiently laid out, nor are they large enough to support the campus's major additions. The new 227,000-square-foot underground service center will provide ample space for all of these functions in the heart of the Clinic's main campus.

This expanded, more centrally located space is only the beginning, though. The service center needs a way to actually serve the various buildings on the campus. Much like the famed underground "utilidors" at Walt Disney World's Magic Kingdom that ensure guests don't see rolling dumpsters being hauled throughout the parks, or cast members in their Adventureland uniforms walking through Fantasyland, an underground corridor system is part of the design for the service center.

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89th Street Service Center & Parking Deck Project At-A-Glance

Donley's Role

Construction Manager &
Structural Concrete Contractor

Milestones

Project Start Date:
October 23, 2006
East Half of Garage Opens:
August 2008
West Half of Garage Opens:
October 2008

Size

Parking Deck:
1,275,000 square feet
Service Center:
227,000 square feet
ITD Office Building:
12,000 square feet
Tunnel & AGV Depot:
16,000 square feet
Project Total: 1,530,000 square feet

Elements

Mass Excavation:
180,000 cubic yards
Concrete:
92,000 cubic yards
Caissons:
7,000 cubic yards
Rebar/PT:
7,000 tons

Parking Deck & Service Center Construction

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The service center will be linked to the existing service corridors and distribution centers in the basements of various campus buildings, including the Miller Pavilion and Glickman Tower, by an underground service tunnel. This 500-foot tunnel will allow for greater efficiency on the Clinic's main campus, as Automated Guided Vehicles (AGV's) will use it to transport materials between the service center and the campus buildings.

The ITD Office Building

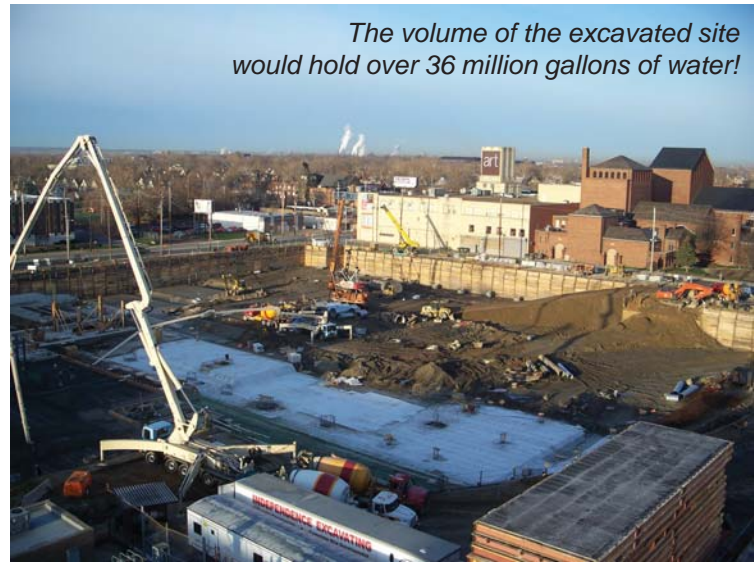
The new structure will include space for the offices and support facilities for the Information Technology Department's on-campus staff and vendors in a 12,000-square-foot office building constructed adjacent to the parking deck. The one-story building and adjacent garage mezzanine will house the Communications Room for the Cable TV System Head-end, as well as the Communications Hub that will serve the entire campus. Functions include Nursing Information Systems, Pharmacy Information Systems, Neurology Information Systems, and Disaster Recovery.

The Parking Deck

Despite the expansion of the JJ Building (see Page 2), the on-site parking capacity on the Clinic's urban campus was deemed insufficient to support its major new additions. The new facility should alleviate that problem: it includes a 1,275,000-square-foot parking deck that will provide space for 4,000 vehicles on eight levels. Located at the corner of East 89th Street and Carnegie Avenue, the deck is currently being developed for employee parking; however, it has been designed to accommodate patient/visitor parking in the future.

One of the Largest Concrete Structures in Cleveland

In addition to Donley's responsibilities as Construction Manager, Donley's is also self-performing the structural concrete construction on the project. Once complete, the East 89th Street Service Center and Parking Deck will be one of the largest concrete structures in Cleveland,



The volume of the excavated site would hold over 36 million gallons of water!

utilizing approximately 92,000 cubic yards of concrete. In comparison, Jacobs Field required only 55,000 cubic yards of concrete.

In May 2007, Donley's performed one of the largest concrete pours in Cleveland history for the structure's hydraulic slab. The pour required 415 truckloads of concrete with four concrete pump trucks pouring more than 4,000 cubic yards of concrete, covering 33,000 square feet (but only 15% of the total building footprint area). In June 2007, three more large pours occurred – totaling 10,700 cubic yards of concrete – to complete the hydraulic slab over the entire building area.



May 2007 - Four concrete pump trucks poured more than 4,000 cubic yards of concrete in less than 12 hours for the structure's hydraulic slab.

The Big Hole in the Ground

According to Jay Waddell, Donley's Sr. Project Manager for the project, "In addition to being one of the largest concrete projects in Cleveland history, the East 89th Street project is also one of the city's top three excavation projects

ever." On par with the Terminal Tower and Jacobs Field, the project required the removal of 180,000 cubic yards of soil – enough to fill approximately 2,770 coal cars, creating a train that would stretch more than 26 miles in length. In fact, the volume of the excavated site would hold over 36 million gallons of water!

The Completion

The facility will be completed in order to serve the heart center complex in fall 2008.