

CorrectionalNEWS

design+construction+operations

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How Following Best Practices Leads to Successful Facilities

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The sallyport is the first stop for arrestees entering the new facility. Men and women are divided on opposite sides, keeping the intake process organized upon arrival.

PROJECT DATA

RTU-RCDC FACILITY AT THE COOK COUNTY DEPARTMENT OF CORRECTIONS

Construction Cost: \$86,256,405

Number of Beds: 979

Area (square feet): 276,450

Start Date: Jan. 3, 2011

Completion Date: July 1, 2013

Owner/Operator: Cook County/Cook County Sheriff

Owner Representative: U.S. Equities

Project Manager: Cook County Office of Capital Planning

Architect: Roula Associates Architects, Chtd.

Structural Engineer: Ghafari Associates, LLC

Mechanical Engineer: Environmental Systems Design Inc.

Detention/Security Design – LEED/Commissioning Agent:
Arnold & O'Sheridan Inc.

General Contractor: Walsh Construction Group

Detention Equipment Contractor:

Pauly Jail Building Company Inc.

Security Electronics Contractor: Accurate Controls Inc.



The new intake center will process 300 to 400 pretrial male and female arrestees entering the Cook County Department of Corrections.

PHOTO CREDIT (all): Darris Lee Harris Photography

CHICAGO'S SERVICE CENTER

The New RTU-RCDC Facility Serves Multiple Functions From Intake to Mental and Medical Intermediate Health Care for the Nearly 10,000 Inmates at the Cook County Jail

BY TORREY SIMS

The 285,000-square-foot structure sits in the middle of Cook County Jail's campus.



FACILITY OF THE MONTH

restees directly to county jail upon arrest,” explained Jeff Pronschinske, director of security engineering at Brookfield, Wis.-based Arnold & O’Sheridan Consulting Engineers, who served as security consultants for the new facility. “In Cook County, arrestees are brought to one of 25 different district police stations where they are booked and spend the night. In the morning, buses are dispatched from the Cook County Sheriff’s Department and travel the circuit to each district police station and picking up those arrested the previous day.”

All the arrestees are then brought to the county jail. “Oftentimes when the busses start rolling in, the old intake/receiving facility would look like the Illinois State Fair on a bad day,” he said.

Because of the history of the intake center and the mass amounts of arrestees entering at any given time, the design for the new intake center was meticulously planned out for the abundance of “foot traffic.”

“The new RTU-RCDC facility can accommodate over 500 new arrestees each day, while making the receiving, classification and diagnostic process as streamlined, ef-

The Cook County Jail, located on Chicago’s near-southwest side, is the largest single-site jail in the country, housing close to 10,000 inmates per day, on average. In response to the large number of inmates, arrestees and services required for them, the Cook County Department of Corrections (CCDOC) and Cook County Cermak Health Services (CCCHS) collaborated on how to best serve these needs and requested the Cook County Board, via the Department of Capital Planning, to fund an addition to the correctional campus to reduce the strain at the jail.

Working with a local firm, Chicago-based Roula Associates Architects, with the CCDOC and the Cook County Office of Capital Planning & Policy, programmed what was needed at the correctional campus and formed plans, budget and site selection for one building with two important functions. The first function would be the new Residential Treatment Unit (RTU), which would house inmates with intermediate health care needs that are currently scattered in different divisions. The second is the Reception Classification Diagnostic Center (RCDC) Intake Center, which replaces the services of the old intake center housed in the basement of another division at the jail.

The massive five-story (plus basement), approximately \$90 million, 285,000-square-foot facility will process 300 to 400 pretrial male and female detainees entering the CCDOC system and also discharge around 300 to 400 detainees a day. It will be the “central station” of holding and transferring (back and forth) around 1,500 male/female detainees from all other divisions, via underground tunnels, to various county courts each day. In addition, it will house two conveyor systems housing 10,000 to 12,000 bags of personal property of all inmates throughout the campus, separately for men and women. While the intake center processes those entering and exiting the system, the RTU building will consist of a nearly 1,000-bed male/female detainee facility with all mental and medical intermediate care and group activities in order to monitor and respond to their medical and mental health needs.

The site property is owned by Cook County, while the Office of Capital Planning served as its representative. The entire project was coordinated between the CCDOC and Cermak Hospital in order to balance the two group’s requirements and budgets. The Office of Capital Planning then gave the design team direction during the planning and construction phase and authorized changes to the project scope and budget, according to John Cooke, director of Cook County’s Office of Capital Planning.



All arrestees are evaluated for medical and mental health after going through an initial security screening.

Walsh Construction was also brought on as the general contractor for the construction of the project.

The facility design started in June 2008 and construction was completed in June 2013. Throughout the process the teams had to collaborate in order to tackle the challenges that the large number of offenders, frequency of movement, number of services and site location presented.

“The program complications required a unique approach in the design,” said Roula Alakiotou, FAIA, principal-in-charge at Roula Associates Architects, a veteran of women-owned Chicago architectural firms, who had also designed the county’s largest division at the jail in the 90s, the maximum-security Division XI. Alakiotou explained that organization of function and space sequencing, separation of men and women in both processing and housing, and attention to detail for layers of circulation flow of intake, processing, discharging, transferring and housing, were prevalent in the design process in order to accommodate for the mass influx of arrestees and the varying services throughout the building — on very tight confines — as every day the facility processes, houses and transfers thousands of arrestees.

“In most counties, sheriff departments bring ar-

restees directly to county jail upon arrest,” Pronschinske said. “It does so through the effective segregation of inmate classification, psychological and medical screening areas.”

The complex facility serves multiple purposes and has stood out to the design team because of its versatility. Paul Reich, project architect at Roula Associates Architects, noted, “It’s unique because there are two different facilities within one. You have a housing facility and a treatment facility that are functioning all within the same walls, which is something completely new for the Cook County Jail.”

Organization

The building itself is complicated. Since arrestees would be coming from all different police stations throughout Cook County, organization was key in implementing an efficient program. The project team realized this and made a clear separation of men and women arrestees as the very first step of entering the RTU-RCDC facility.

When arrestees are dropped off in the sallyport area they are immediately taken to one side of the processing center — a larger area for males and a smaller area for women. Once they step through the doors into the

FACILITY OF THE MONTH



The open housing design gives correctional officers an unobstructed view on all inmate movement.

facility a correctional officer will take down their information and record their voice as part of the new voice recognition software required for all arrestees going through the intake process. Arrestees are then taken through state-of-the-art security screenings in an “assembly line” fashion, still keeping all male and female arrestees separated at all times.

After the arrestees are thoroughly screened at security they are taken to an open layout room where they meet with a trained correctional officer who assesses their situation and makes proper recommendations before health care and mental health screening.

After the arrestee is taken in for evaluation, they are distributed according to their classification level. This process

takes place throughout the day, so designing a facility that could accommodate this type of inmate movement was crucial.

Technology

The RTU-RCDC building is the first to house an IP-based video visitation center for the Cook County Jail, according to the project team. Video visitation is becoming an increasingly popular trend for correctional facilities around the country as it limits inmate movement, reduces the number of man hours required by correctional officers escorting inmates to-and-from traditional non-contact visitation areas and gives loved ones who live far away the opportunity to see inmates without traveling to the jail.

“Internet-based video visitation also

reduces the number of public vehicles on-site and visitors to be processed. Staff efficiencies will be gained through the use of automated online scheduling of inmate visits,” Pronschinske said.

Alakiotou and Reich explained that updating and modernizing facilities on the Cook County Jail’s campus is essential in ensuring the safety and security of inmates, visitors and staff. Cooke also noted the importance of safety in the facility.

“The project team carefully planned the building to maintain the critical separations needed for the safety of inmates, officers and medical personnel,” Cooke said.

The facility is equipped with state-of-the-art technology, enabling correctional officers to have a detailed, real-time view on all operations of the new building, according to Cooke.

“Advances in electronic controls and observation are part of the design,” he said. “With 830 cameras, virtually every area is visible to officers.”

The facility has the largest correctional-grade video surveillance network on Cook County Jail’s campus, according to Pronschinske.

“With [over 800] IP-based security cameras and 35 touch screens in this single building, the security designed for the RTU-RCDC facility is one of the largest and most sophisticated in the country,” Pronschinske said. “It has been a true pleasure working on this project and a personal highlight in my career.”

Site Location

Choosing an available site to accommodate the heavy traffic of arrestees and staff was difficult. And the challenge didn’t end once the site was chosen.

“It is in the middle of the campus, had to be near Cermak Hospital for easier circulation of medical staff, a close proximity to post-5 for inmate discharge and for easier public access for visitation, extremely tight for the assigned program and saturated with underground utilities, busily active with inmate open-air drop-offs by busses, no direct street access — all of which added to the great challenge of designing and constructing this building,” said Alakiotou.

Medical Care

The medical and mental health evalu-

ation area is an expansive part of the new facility. Inmates who need intermediate care will be taken to the new state-of-the-art space. The upper floors are dedicated housing floors — one for women, two floors for men (one mental and one medical) and half a floor to accommodate the overflow of arrestees as needed.

The facility will be fully equipped with doctors and psychologists, sharing staff from the already existing Cermak Hospital. Staff members will also be able to perform their jobs without worry of threatening situations as top security strategies have been implemented in order to combat any potential danger.

“The sequence of medical/mental evaluation is facilitated by the design’s space organization, there is one control station for men and one for women, with clear visibility of the entire area via the attack-rated glass, camera monitoring, hard-wired duress alarm buttons inte-

Male Evaluation Area Includes:

- 14 interview booths
- 4 mental health rooms
- 6 exam rooms
- 1 treatment room
- Phlebotomy lab
- X-ray room
- Dental room
- Waiting/cueing areas

Female Evaluation Area Includes:

- 5 interview booths
- 2 mental health rooms
- 3 exam rooms
- 1 treatment room
- Phlebotomy lab
- X-ray room
- Dental room
- Waiting/cueing areas

PRODUCT DATA

Detention Hollow Metal Doors and Frames: Trussbilt

Detention Hardware: Southern Folger Detention Equipment Company

Detention Glazing: Global Security Glazing

Detention Furnishings: PDI

Detention Woven Rod Barriers: Kane Manufacturing

Security Windows: Hopes

Security Ceiling System: Trussbilt

PLC Controllers: Modicon

HMI Software: Wonderware

Touch Screen Monitors: Elo

Card Access System: Identocard

Voice Communication System: Harding Instruments

Intercoms: Quam

Ceiling Speakers: Lowell

Security Cameras: Bosch

Video Surveillance System Software: Genetec

Inmate Television System: Contemporary Research

Video Visitation Units: Accurate Controls

Video Visitation System Software: Renovo

Jail Management System: IMACS

Security Screening Systems: Smiths Detection

Lighting Fixtures: Cooper Fail-Safe Maximum Security

Plumbing Fixtures: Metcraft

Building Management System: Johnson Controls

Smoke Detection System: EST Life Safety & Communications

Roofing: CETCO Green Roof system

Insulation: Polyisocyanurate

grated to the security touch-screen system in each room for staff, and the room layouts are designed so that staff are by door openings for a quick exit,” explained Alakiotou.

Sustainable Design

The facility is seeking LEED Silver certification, which is required for all new buildings (including residential) in Cook County as part of a county ordinance. It will be the first building on the campus to achieve the certification.

Incorporating green strategies into correctional facilities is growing in popularity, but is not without its challenges. Because of the high security and special attention to building materials, the design team had to carefully calculate where and how the green features would work in the building.

The overall mechanical system is designed to achieve energy cost savings through advanced air handling units and the facility’s more than 200 thermostatic control zones and the latest in building automation control technology, according to Reich.

See **FOM**, page 49

SEC Report, from page 37

March of this year, the Wall Street Journal reported that in 2012, minimum wages increased in Zhejiang and Guangdong by 12 percent and 19 percent, respectively, and that the central government's inequality plan will "lift minimum wages to 40 percent of the average" in the coming years.

Additionally, the many other reasons such as IP protection, environmental benefits, quality control, and simpler supply chain management are re-attracting U.S. manufacturing companies to invest and produce on our own soil.

There's just that one thing that we're lacking: a vocationally trained workforce.

The U.S. all but relinquished our vocational training when we became a services-based economy. As a result, we left Asia and Europe ripe with opportunities to educate their workforce on the skills we threw out with the press brakes.

Now, when the very face of manufacturing jobs has changed and we compete with the world for a piece of market share, we're looking for a comparable workforce to do the work.

This position reveals forethought on the DEC and SEC portions of the detention industry that already manufacture their final products in the United States. This does not exclude the industry from the same labor problem, however, though its solution is readily available

when we consider how to prepare for the repatriation of resources.

The responsibility of SECs and DEC is to meet this trend with vocational training. This is easily enough accomplished by creating apprenticeship programs with local technical schools, offering career days at facilities and hiring interns to work side-by-side with in-house engineering teams. Soon a workforce will emerge from the sharing

of information and from there, the companies in this sector are only limited by the risks they're willing to take.

But it must be done quickly. When other companies decide to retool their operations to meet manufacturing demand, and as the corrections industry moves more toward IT manufacturing, that sacred space becomes smaller and the competition from external markets moves in.

Now is the time to understand the

trends and begin preparing for the shift in the markets. "Made in the U.S.A" may never mean everything it used to, but the new definition can be shaped by our industry's involvement in the next wave of manufacturing.



FOM, from page 48

"Large populated areas, such as meeting rooms, holding cells, etc., have carbon dioxide monitors for demand control ventilation," he explained. "Each air handling system has the means to measure all outdoor air ventilation rates as well as supply and return fan air flow rates."

Another "green" highlight of the RTU-RCDC facility is the green roof, which was designed and installed in order to reduce the building's heat island effect and also to reduce the roof's rainwater runoff.

Up and Running

The new facility has been handed over to the Cook County Jail and they have started to transition inmates and services into the new building.

The project team had to take a three-month extension in order to properly assess and test the new technology in the facility. Now, however, the inmates are being gradually phased in as the facility becomes operational.

The new space hopes to provide the necessary structure and services to accommodate the heavily populated Cook County Jail and expects to be at capacity by the end of this year. ■

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